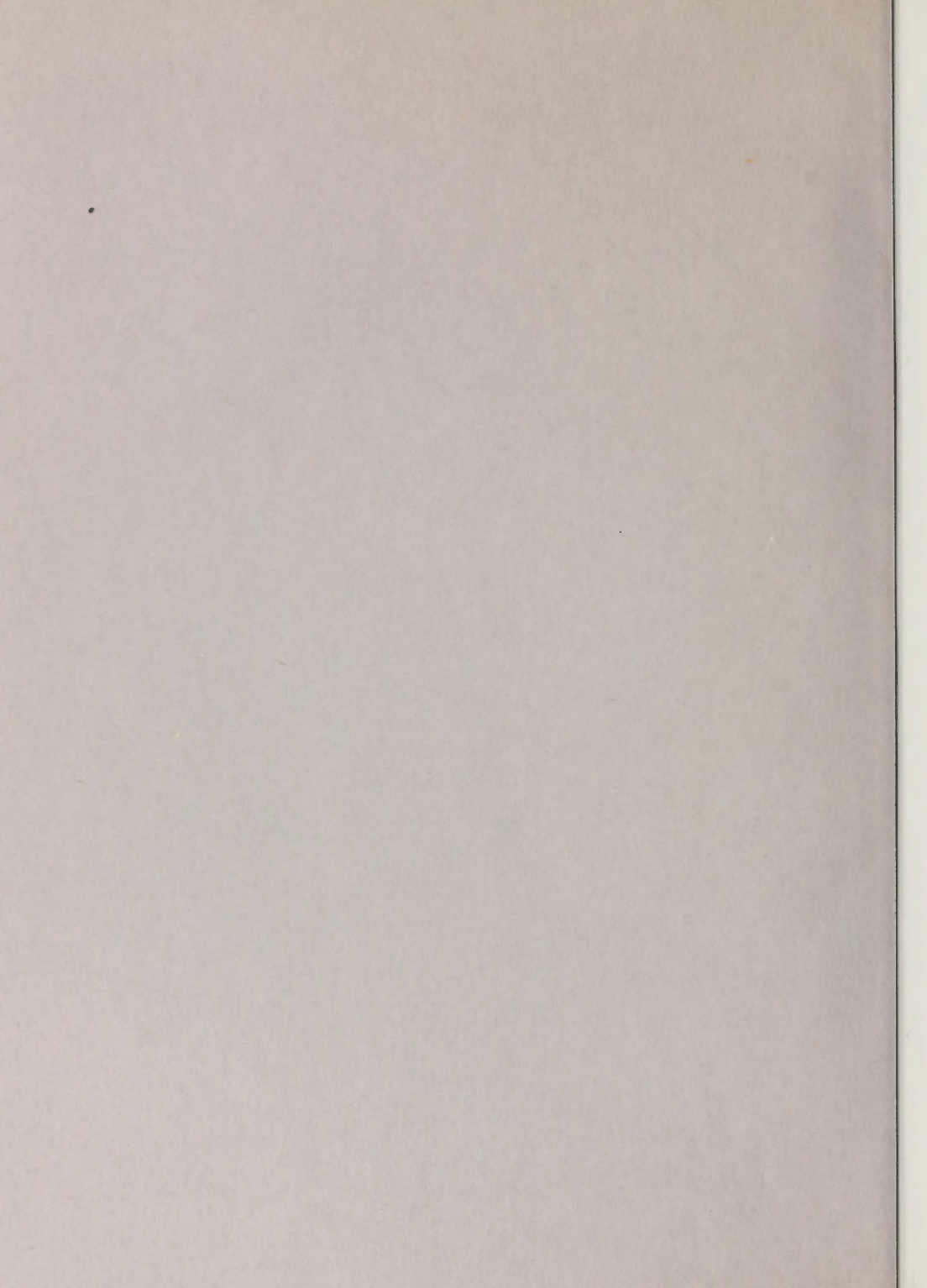


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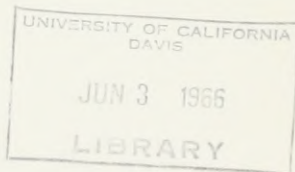
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BULLETIN No. 130-64

HYDROLOGIC DATA: 1964

Volume V: SOUTHERN CALIFORNIA

Appendix E: GROUND WATER QUALITY

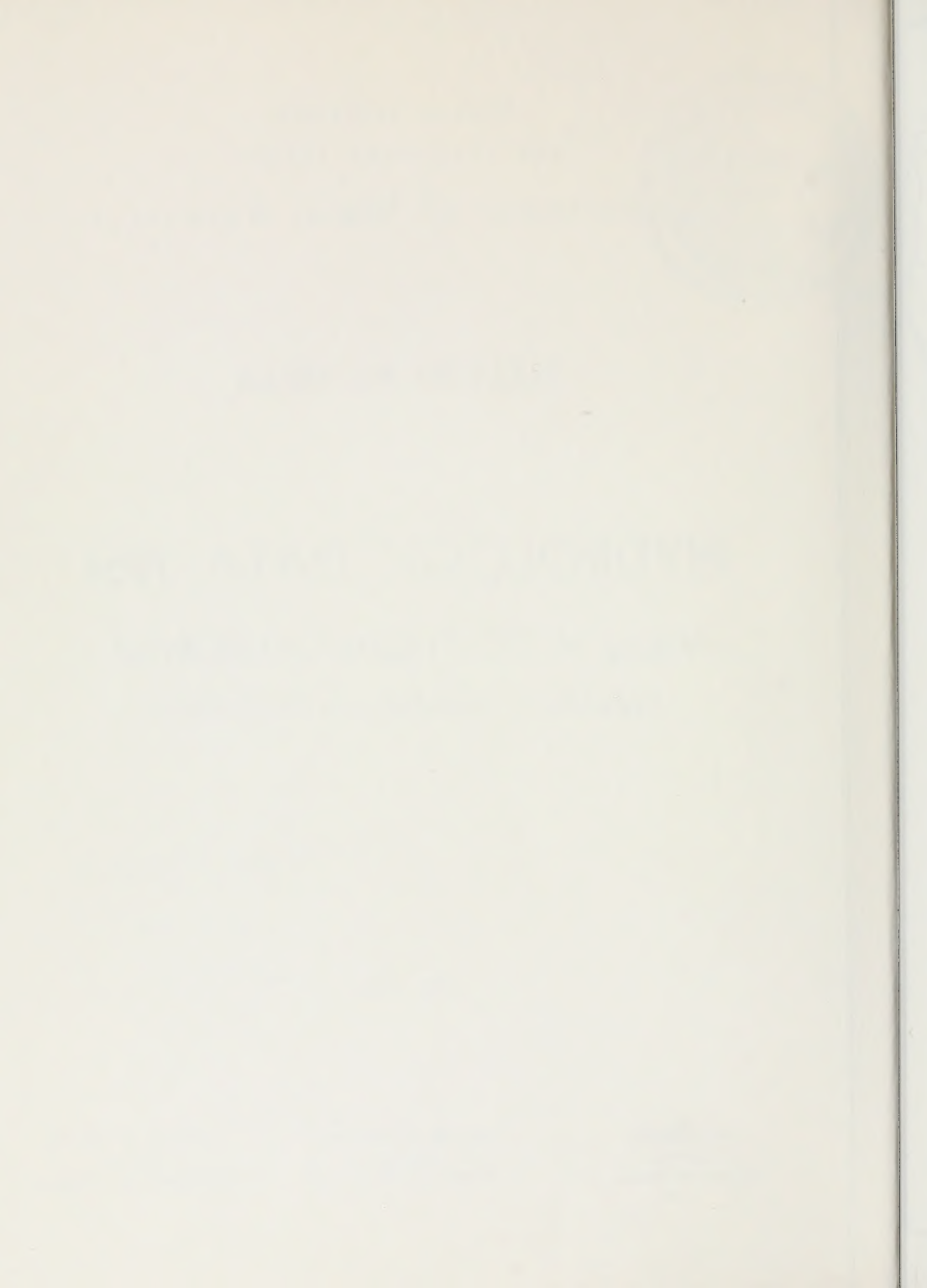


APRIL 1966

HUGO FISHER
Administrator
The Resources Agency

EDMUND G. BROWN
Governor
State of California

WILLIAM E. WARNE
Director
Department of Water Resources



State of California
THE RESOURCES AGENCY
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ORGANIZATION OF BULLETIN NO. 130 SERIES

Volume I - NORTH COASTAL AREA

Volume II - NORTHEASTERN CALIFORNIA

Volume III - CENTRAL COASTAL AREA

Volume IV - SAN JOAQUIN VALLEY

Volume V - SOUTHERN CALIFORNIA

Each volume consists of the following:

TEXT and

Appendix A - CLIMATE

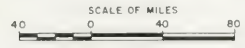
Appendix B - SURFACE WATER FLOW

Appendix C - GROUND WATER MEASUREMENTS

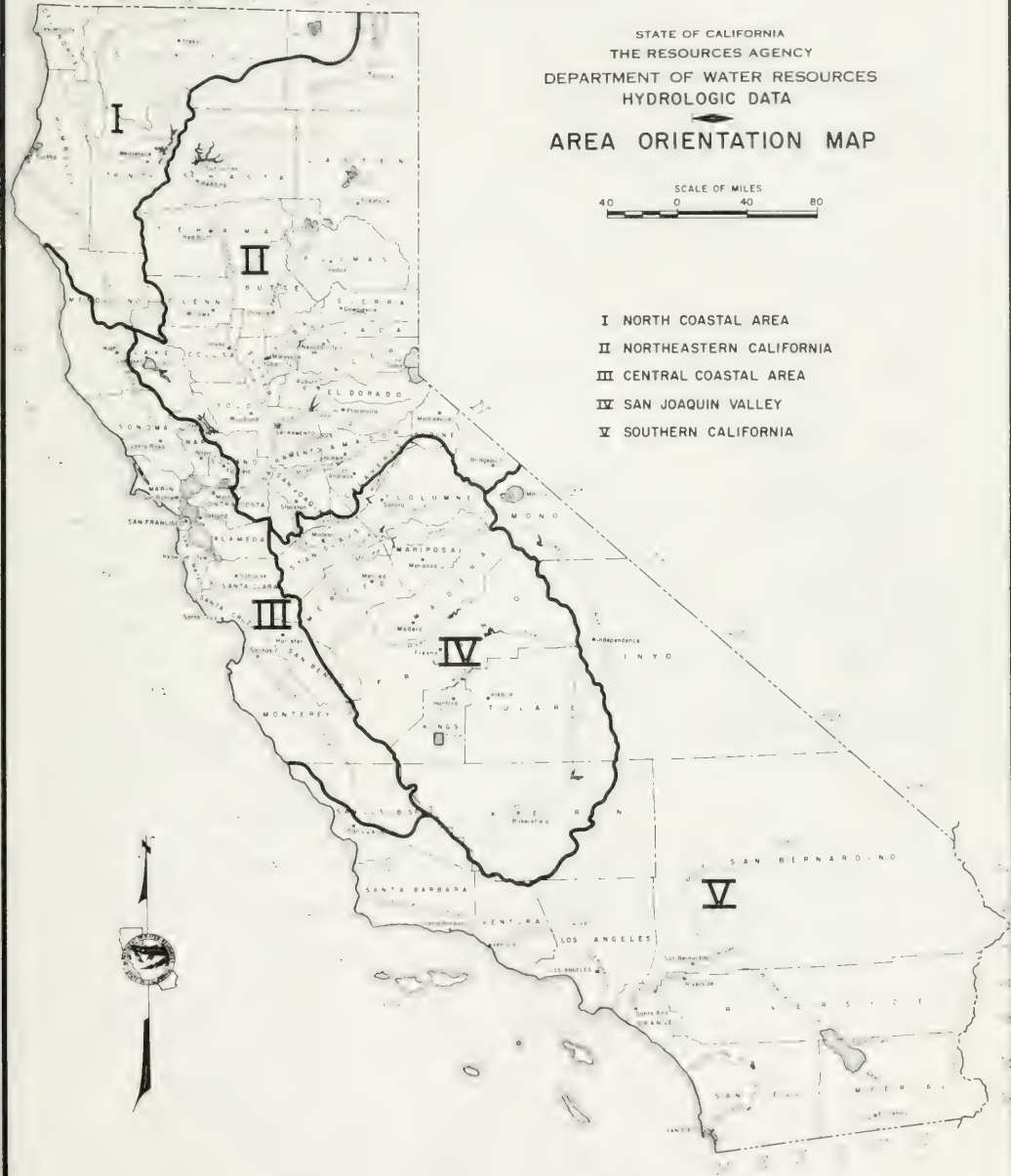
Appendix D - SURFACE WATER QUALITY

Appendix E - GROUND WATER QUALITY

STATE OF CALIFORNIA
 THE RESOURCES AGENCY
 DEPARTMENT OF WATER RESOURCES
 HYDROLOGIC DATA
 AREA ORIENTATION MAP



- I NORTH COASTAL AREA
- II NORTHEASTERN CALIFORNIA
- III CENTRAL COASTAL AREA
- IV SAN JOAQUIN VALLEY
- V SOUTHERN CALIFORNIA



METRIC CONVERSION TABLE

ENGLISH UNIT	EQUIVALENT METRIC UNIT
Inch (in)	2.54 Centimeters
Foot (ft)	0.3048 Meter
Mile (mi)	1.609 Kilometers
Acre	0.405 Hectare
Square mile (sq. mi.)	2.590 Square kilometer
U. S. gallon (gal)	3.785 Liters
Acre foot (acre-ft)	1,233.5 Cubic meters
U. S. gallon per minute (gpm)	0.0631 Liters per second
Cubic feet per second (cfs)	1.7 Cubic meters per minute

TABLE OF CONTENTS

	<u>Page</u>
ACKNOWLEDGMENTS	vi
INTRODUCTION	1
Surveillance Program Changes, 1963-64	1
Field Procedures	2
Laboratory Procedures	2
Reporting Methods	2
Numbering Systems	3
Areal Designation Code	3
Well Numbering System	5
DATA	7

TABLES

Table No.

E-1	Mineral Analyses of Ground Water:	
	...Central Coastal Drainage Province (T)	9
	...Los Angeles Drainage Province (U)	74
	...Lahontan Drainage Province (W)	279
	...Colorado River Basin Drainage Province (X)	314
	...Santa Ana Drainage Province (Y)	341
	...San Diego Drainage Province (Z)	466
E-2	Radioassays of Ground Water:	
	...Los Angeles Drainage Province (U)	526
	...Colorado River Basin Drainage Province (X)	529
	...Santa Ana Drainage Province (Y)	530

FIGURES

Figure No.

1	Area Orientation Map	iii
2	Location of Drainage Province Boundaries	4

ACKNOWLEDGMENTS

The ground water quality monitoring program was conducted with the assistance of the following agencies:

United States Geological Survey, Southern California
Subdistrict Office

Los Angeles County Flood Control District

Orange County Flood Control District

Riverside County Flood Control and Water
Conservation District

San Luis Obispo County Flood Control and
Water Conservation District

San Bernardino County Flood Control District

Ventura County Flood Control District

Orange County Water District

United Water Conservation District, Ventura County

City of Long Beach Water Department

City of Los Angeles Department of Water and Power

The Department of Water Resources thanks these agencies for their valuable assistance and cooperation.

INTRODUCTION

Appendix E to Volume V of Bulletin No. 130-64 contains data on quality of ground water in Southern California for the 1963-64 water year.

The data presented are measured values of the chemical and radiological characteristics of ground water in Southern California. The Southern California area is shown on Figure 1.

The ground water quality data program consists of selection of a network of wells to be sampled, collection of samples by Department personnel or cooperators, laboratory analyses by the Department or cooperators, examination of the data to note trends or significant changes, and publication of the data and findings. A readily accessible file of analyses data is maintained for use in planning studies and other investigations.

The sampling program is periodically reviewed, and wells that are found to be out of production for any length of time or not able to be sampled for some reason are deleted and replaced with wells selected on the basis of continuity of analyses records, ease of sampling, and availability of construction data and geologic logs.

Surveillance Program Changes, 1963-64

The cooperative sampling program for ground water is maintained at a level of about 1,500 wells to be sampled at least once a year. During the 1963-64 water year, however, only about 800 of these were sampled. This is a decrease over the previous year because budgetary restrictions forced suspension of the Department's sampling of many wells in remote and desert areas.

Cooperating agencies continued to supply analyses for program wells and in addition supplied analyses for many other wells throughout the Southern California area. Department units conducting special investigations also provided analyses for many wells.

All ground water mineral analyses (about 3,600) compiled by the Department of Water Resources from sources in the Southern District during the 1963-64 water year are included here.

Field Procedures

Because of the effect that the method of sampling may have on the analyses obtained, an explanation of the procedures established for sample collection is given below.

Ground water samples are collected in gallon or half-gallon containers. Preferably, they are taken at the nearest possible point to the discharge valve of the pump after it has been pumping for at least five minutes. Observations of color, odor, and taste of samples are made and recorded at the time of collection.

Separate samples are collected when necessary for radioactivity analyses, trace element analyses, or other special determinations.

Laboratory Procedures

The methods of chemical and radiological analyses of ground water used by the Department are the same as those for the analyses of surface water outlined in the text portion of Appendix D.

Reporting Methods

Individual chemical constituents of ground water analyses in Table E-1 are reported as parts per million (ppm). (Machine methods of

data processing are being developed and all of Table E-1 has been machine tabulated. By putting the data on machines, the Department will more efficiently be able to supply the user precisely the data he needs, so far as they are available in the Department.)

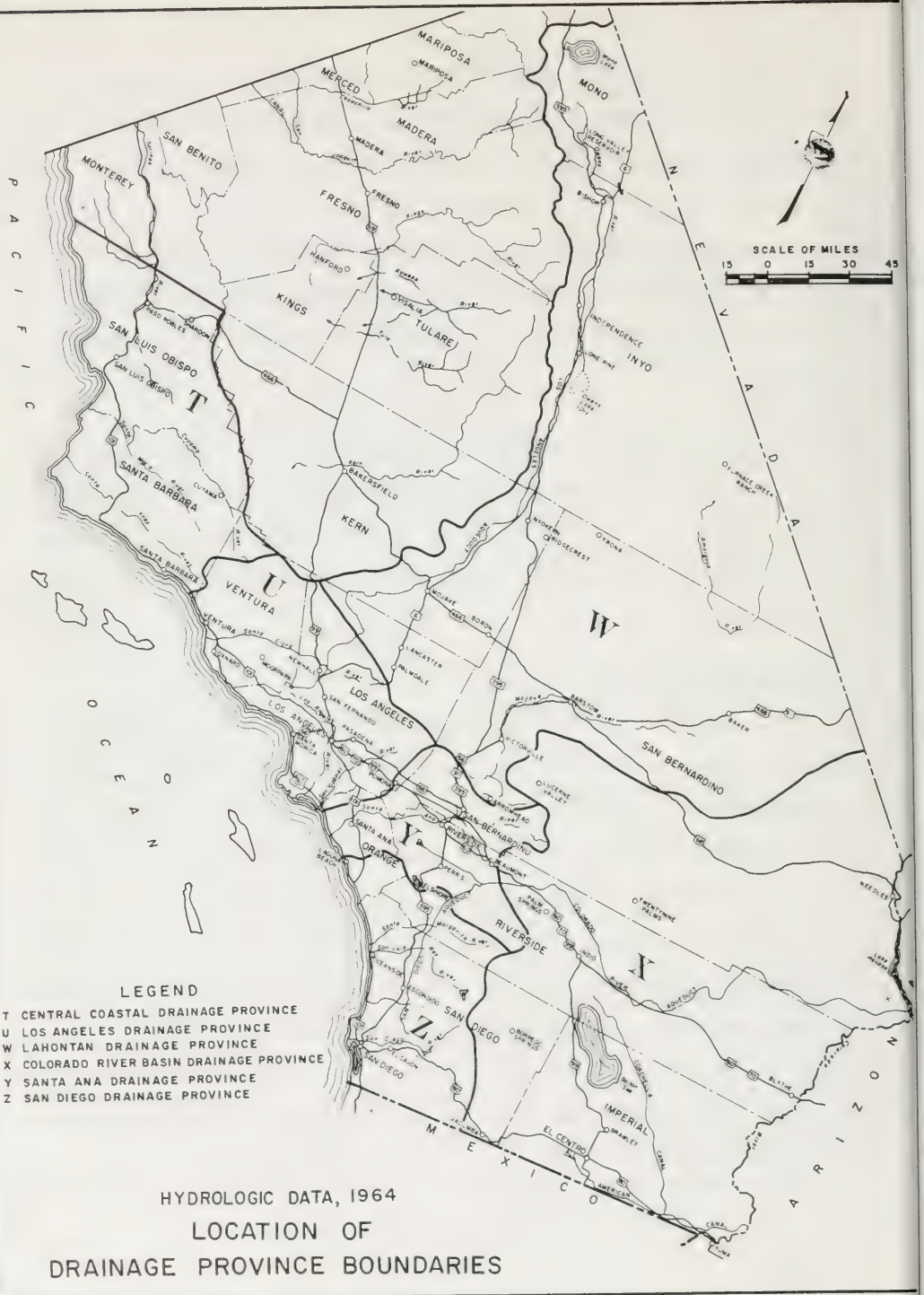
Radiological analyses for ground water are reported in pico-curies per liter (pc/l) in Table E-2. These samples were given either analyses for solid and dissolved alpha-beta activity or gross alpha-beta activity analyses.

Numbering Systems

To facilitate the processing of basic hydrologic data published in this appendix, numerical and letter codes are used to designate hydrologic areas and wells. The coding systems are described in the following paragraphs.

Areal Designation Code

The areal designation coding system used is based on a decimal number, in the form A-11.A1, comprising two alphabetical and three numerical characters. The alphabetical character to the left of the dash refers to the drainage province. (The boundaries of these provinces correspond to the regional water quality control board boundaries, with the exception of the Los Angeles-Orange and Los Angeles-San Bernardino county boundaries. These boundaries are shown on Figure 2.) Next are two digits to the left of the decimal; these refer to the hydrologic unit. To the right of the decimal is one alphabetical character which refers to the hydrologic subunit and, next to it, a numerical character representing the hydrologic subarea.



LEGEND

- T CENTRAL COASTAL DRAINAGE PROVINCE
- U LOS ANGELES DRAINAGE PROVINCE
- W LAHONTAN DRAINAGE PROVINCE
- X COLORADO RIVER BASIN DRAINAGE PROVINCE
- Y SANTA ANA DRAINAGE PROVINCE
- Z SAN DIEGO DRAINAGE PROVINCE

HYDROLOGIC DATA, 1964

LOCATION OF DRAINAGE PROVINCE BOUNDARIES

Maps showing these hydrologic areas with their names and areal code numbers are published in the text and Appendixes A and B, Volume V of Bulletin No. 130-64.

Well Numbering System

The state well numbering system used in this report is based on township, range, and section subdivision of the Public Land Survey. It is the system used in all ground water investigations and for numbering all wells for which data are published or filed by the Department of Water Resources. In this report, the number of a well, assigned in accordance with this system, is referred to as the State Well Number.

Under the system each section is divided into sixteen 40-acre tracts lettered as follows:

D	C	B	A
E	F	G	H
M	L	K	J
N	P	Q	R

Note that I and O are omitted in the grid above.

Wells are numbered within each 40-acre tract according to the chronological sequence in which they have been assigned State Well Numbers. For example, a well which has the number 9N/32W-17G1, S, would be in Township 9 North, Range 32 West, Section 17, San Bernardino Base and Meridian, and would be further designated as the first well assigned a

State Well Number in tract G. Well numbers in Southern California are referenced to the Mount Diablo Base and Meridian (M), or the San Bernardino Base and Meridian (S).

An exception to the numbering system based on the Public Land Survey occurs with wells located on land granted when under Spanish or Mexican rule. Succession of title continued after cession of California to the United States. An arbitrary projection of synthetic sections has been imposed on maps of these lands and grants, and these maps are designated as official for numbering of wells in these areas.

Ground water samples obtained from springs are identified by numbers similar to well numbers, except that an "S" is included after the 40-acre tract designation to signify a spring. An example of a number used to identify a sample from a spring is 2N/4W-4MS1, S.

DATA

GROUND WATER QUALITY

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million percent reactance value				Mineral constituents in parts per million							
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fluo- ride F	Boro- n B	Sil- ica SiO ₂	TDS Excep- ting CO ₃ Compute d	Total hardness CaCO ₃		
Date sampled																			
T0900																			
PASO ROBLES HYDRO SUBUNIT																			
T09H0																			
24S/11E-25N 1 M 7-14-64	--	7.1	1727	53 2.64 14	34 2.80 15	293 12.74 70	0.10 0.10 1	4 1	0	325 5.33 29	7.41 41	356 7.41 41	194 5.47 30	4 0.06	0.5	1.80	34	1130 1134	272
24S/12E-17L 2 M 9-30-64	--	7.5	1328	136 6.79 43	66 5.43 34	82 3.57 22	0.13 0.13 1	5 1	0	303 4.97 31	473 9.85 62	35 0.99 6	35 0.99 6	3 0.05	0.5	0.28	45	1050 995	611
25S/10E-31K 1 M 9- 4-64	--	7.8	1823	173 8.63 35	153 12.58 51	73 3.17 13	6 0.15 1	6 1	0	439 7.20 30	766 15.95 66	40 1.13 5	40 1.13 5	0	1.0	0.15	--	1612 1428	1061
25S/10E-31N 1 M 9- 4-64	--	7.8	1875	41 2.05 10	12 6.99 5	390 16.96 84	10 0.26 1	0 1	0	364 5.97 30	521 10.85 54	115 3.24 16	115 3.24 16	3 0.05	0.2	0.75	--	1242 1272	152
25S/12E- 5R 1 M 9-22-64	67	8.0	1200	54 2.69 18	75 6.17 42	135 5.87 40	3 0.08 1	3 1	0	554 9.08 62	163 3.39 23	77 2.17 15	77 2.17 15	1 0.02	0.4	0.45	--	780 781	443
25S/12E- 8G 1 M 7-15-64	--	8.0	916	58 2.89 29	48 3.95 39	72 3.13 31	3 0.08 1	3 1	0	345 5.65 55	120 2.50 24	67 1.89 18	67 1.89 18	12 0.19	0.5	0.37	45	606 595	342
25S/12E- 8R 1 M 7-15-64	--	7.2	1437	94 4.69 29	68 5.59 35	129 5.61 35	3 0.08 1	3 1	0	382 6.26 39	278 4.75 30	151 4.26 27	151 4.26 27	48 0.77	0.5	0.48	48	1010 958	514
25S/12E- 8R 2 M 9-17-64	67	8.0	1340	72 3.59 24	67 5.51 37	127 5.52 38	3 0.08 1	3 1	0	371 6.08 41	236 4.91 33	128 3.61 25	128 3.61 25	8 0.13	0.2	0.52	--	874 824	455

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Date sampled	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				Mineral constituents in parts per million										
					Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	Total Evaporates as CaCO ₃		
					Co	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂	TDS Expressed as CaCO ₃		
SALINAS HYDRO UNIT																			
T09HO									T0900										
PASO ROBLES HYDRO SUBUNIT																			
25S/12E-28B 1 M 7-15-64	--	--	7.6	1958	112 5.59 25	97 7.98 36	196 8.52 38	0.13 1	5	0	440 7.21 32	434 9.04 40	214 6.03 27	13 0.21 1	0.7	0.84	47	1404 1336	679
25S/12E-35A 1 M 7-14-64	--	--	7.5	2532	133 6.64 22	106 8.12 30	323 14.04 48	0.13	5	0	524 8.59 29	600 12.49 42	301 8.49 29	5 0.08	0.8	1.24	33	1820 1766	769
26S/ 9E-15NS1 M 9- 7-64	--	--	8.0	340	48 2.40 70	9 0.74 22	6 0.26 8	0.03 1	1	0	184 3.02 85	11 0.23 6	11 0.31 9	0	0.1	0.08	--	196 177	157
26S/12E-16C 1 M 7-15-64	--	--	7.5	1170	97 4.84 38	43 3.54 28	102 4.43 34	0.05	2	0	457 7.49 58	103 2.14 16	114 3.21 25	11 0.18 1	0.5	0.30	38	752 736	419
26S/12E-16C 2 M 7-15-64	--	--	7.6	1773	46 2.30 12	15 1.23 6	368 16.00 82	0.10	4	0	550 9.01 47	230 4.79 25	189 5.33 28	1 0.02	3.0	1.90	39	1170 1167	177
26S/12E-16F 1 M 7-15-64	--	--	7.4	1011	98 4.89 47	34 2.80 27	61 2.65 26	0.05	2	0	265 4.34 41	82 1.71 16	119 3.36 32	67 1.08 10	0.3	0.21	43	682 637	385
26S/12E-21D 1 M 7-15-64	--	--	6.6	918	36 1.80 19	31 2.55 27	117 5.09 53	0.08	3	0	197 3.23 34	136 2.83 30	123 3.47 36	2 0.03	0.5	0.56	27	580 573	218
26S/12E-21L 1 M 8- 3-64	70	7.4	1850	85 4.24 20	27 2.22 11	330 14.35 68	0.15 1	6	0	574 9.41 46	168 3.50 17	270 7.61 37	3 0.05	0.6	0.85	--	1121 1173	323	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				Mineral constituents in parts per million					
				Calcium M g	Magne- sium M g	Sodium No	Potas- sium K	Carbon ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo ride Cl	Ni- trate NO ₃	Fuo ride F	Boron B	Sul- fa- te SO ₂	Total hardness as CaCO ₃	
PASO ROBLES HYDRO SUBUNIT																	
T0900																	
26S/12E-33B 2 M 8-3-64	65	8.0	1750	174 8.68 42	54 4.44 22	167 7.26 35	4 0.10	0	462 7.57 37	360 7.50 37	184 5.19 26	0	0.1	0.55	--	1288 1171	657
27S/12E-4P 2 M 7-16-64	--	7.9	1140	54 2.69 20	69 5.67 43	109 4.74 36	2 0.05	0	429 7.03 53	216 4.50 34	60 1.69 13	0	0.1	0.38	--	762 721	418
27S/12E-9F 1 M 7-16-64	64	7.6	880	59 2.94 28	70 5.76 56	37 1.61 16	1 0.03	0	324 5.31 51	169 3.52 34	57 1.61 15	0	0.2	0.16	--	644 553	435
27S/12E-21B 1 M 7-16-64	62	7.8	870	74 3.69 37	56 4.61 46	38 1.65 17	1 0.03	0	350 5.74 57	151 3.14 31	43 1.21 12	0	0.1	0.12	--	594 535	415
27S/12E-21G 1 M 7-16-64	--	7.5	1410	123 6.14 39	67 5.51 35	97 4.22 27	2 0.05	0	456 7.47 48	209 4.35 28	119 3.36 21	32 0.52 3	0.1	0.26	--	974 874	583
27S/12E-21M 1 M 7-16-64	62	7.9	1090	111 5.54 42	66 5.43 41	49 2.13 16	1 0.03	0	340 5.57 42	288 6.00 46	55 1.55 12	1 0.02	0.1	0.14	--	800 738	549
27S/12E-29P 3 M 7-17-64	62	7.6	1060	122 6.09 53	42 3.45 30	45 1.96 17	1 0.03	0	326 5.34 46	227 4.73 41	55 1.55 13	3 0.05	0.1	0.14	--	760 655	477
27S/12E-32F 2 M 7-15-64	64	7.7	960	81 4.04 36	64 5.26 47	41 1.78 16	2 0.05	0	309 5.06 45	221 4.60 41	59 1.66 15	0	0.1	0.10	--	676 620	465

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Date sampled	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million										Mineral constituents in parts per million				
					Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Flu- oride F	Bar- ite Ba	Sil- ica SiO ₂	I.D.S. Exp. I.D.S.C. on C.O.C.S	Total hardness on C.O.C.S	
T0900																			
SALINAS HYDRO UNIT																			
PASO ROBLES HYDRO SUBUNIT					T09H0										T0900				
28S/12E-4G 1 M 7-16-64		62	7.3	800	78 3.89 43	45 3.70 41	33 1.43 16	1 0.03	0	0	293 4.80 53	158 3.29 36	36 1.02 11	0	0.1	0.07	--	548 495	380
28S/12E-10H 3 M 7-15-64		68	8.2	840	32 1.60 17	74 6.09 65	39 1.70 18	1 0.03	0	0	342 5.61 58	110 2.29 24	58 1.64 17	7 0.11 1	0.1	0.07	--	574 489	385
28S/12E-14R 1 M 7-15-64		68	7.8	890	77 3.84 38	55 4.52 45	39 1.70 17	2 0.05	0	0	337 5.52 55	125 2.60 26	55 1.55 16	20 0.32 3	0.1	0.05	--	622 539	418
28S/12E-24F 2 M 7-15-64		65	8.1	580	50 2.50 39	32 2.63 41	29 1.26 20	1 0.03	0	0	227 3.72 59	78 1.62 26	32 0.90 14	4 0.06 1	0.1	0.08	--	364 338	257
28S/13E-30N 1 M 7-15-64		65	7.7	650	48 2.40 34	38 3.13 44	35 1.52 21	2 0.05	0	0	252 4.13 59	86 1.79 26	32 0.90 13	10 0.16 2	0.1	0.07	--	414 375	277
29S/13E-5D 5 M 7-14-64		--	8.2	930	38 1.90 18	84 6.91 64	45 1.96 18	0	0	0	294 4.82 45	189 3.93 37	61 1.72 16	12 0.19 2	0.1	0.07	--	722 574	441
29S/13E-8N 1 M 7-14-64		65	8.4	730	27 1.35 16	63 5.18 62	40 1.74 21	1 0.03	13 0.43 5	0	298 4.88 58	55 1.15 14	67 1.89 23	2 0.03 1	0.1	0.05	--	510 415	327
29S/13E-19H 2 M 7-14-64		64	7.9	550	35 1.75 29	36 2.96 50	29 1.26 21	0	0	0	244 4.00 68	59 1.23 21	21 0.59 10	5 0.08 1	0.1	0.09	--	368 305	236

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				million reactivity value				Mineral constituents in parts per million			
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Barium	Silica	Iron	Copper	Zinc	Lead
SAN LUIS OBISPO HYDRO UNIT																			
CAMBRIA HYDRO SUBUNIT				T10A0				T10A2				T10A3				T10A6			
ARROYO DE LA CRUZ HYDRO SUBAREA																			
25S/ 6E-35Q 1 M 7-23-64	68	8.0	500	37 1.85 35	30 2.47 47	20 0.87 17	1 0.03 1	0	0	246 4.03 77	26 0.54 10	23 0.65 12	0	0.1	0.12	--	270 258	216	
SAN SIMEON HYDRO SUBAREA																			
26S/ 6E-11H 1 M 7- 8-64	--	7.5	1380	38 1.90 13	52 4.28 30	182 7.91 56	1 0.03	0	0	116 1.90 14	46 0.96 7	392 11.05 79	3 0.05	0.1	0.08	--	978 771	309	
26S/ 7E-26C 1 M 7- 8-64	--	7.8	880	58 2.89 31	56 4.61 49	43 1.87 20	2 0.05 1	0	0	374 6.13 67	25 0.52 6	89 2.51 27	0	0.1	0.10	--	510 457	375	
27S/ 8E- 6H 2 M 7- 8-64	--	8.2	570	38 1.90 30	43 3.54 56	19 0.83 13	1 0.03	0	0	298 4.88 78	40 0.83 13	18 0.51 8	0	0.1	0.10	--	346 306	272	
CAYUCOS HYDRO SUBAREA																			
28S/10E-33E 1 M 7-14-64	--	8.4	1079	41 2.05 16	71 5.84 47	104 4.52 36	1 0.03	29 0.97 8	0	466 7.64 61	35 0.73 6	98 2.76 22	23 0.37 3	0.4	0.30	--	636 632	395	
28S/10E-33E 3 M 7-14-64	--	7.1	3607	156 7.78 20	195 16.04 42	326 14.17 37	2 0.05	0	0	567 9.29 25	105 2.19 6	905 25.52 67	56 0.90 2	0.5	0.31	--	2294 2025	1192	

TABLE E-1
 MINERAL ANALYSES OF GROUND WATER 1963/64
 CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per percent reactance value										Mineral constituents in parts per million				
				Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Calcium carbonate CaCO ₃	Magnesium bicarbonate MgHCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total Dissolved Solids as CaCO ₃	Total hardness as CaCO ₃	
SAN LUIS OBISPO HYDRO UNIT																		
T10A0																		
CAMBRIA HYDRO SUBUNIT																		
CAYUCOS HYDRO SUBAREA																		
T10A6																		
28S/10E-33E11 M 7-14-64	--	8.6	1600	53 2.64 16	64 5.26 31	207 9.00 53	1 0.03	30 1.00 6	433 7.10 42	35 0.73 4	268 7.56 45	28 0.45 3	0.6 0.27	964 900	395			
28S/10E-33E12 M 7-14-64	--	8.1	1700	46 2.30 12	78 6.41 34	235 10.22 54	1 0.03	0 0	523 8.57 46	48 1.00 5	318 8.97 48	17 0.27 1	0.6 0.27	1060 1001	436			
28S/10E-33K 2 M 1-21-64	--	7.8	1230	63 3.14 24	71 5.84 44	100 4.35 33	1 0.03	0 0	520 8.52 64	36 0.75 6	125 3.53 27	29 0.47 4	0.2 0.33	706 699	449			
28S/10E-33L 1 M 7-14-64	--	8.1	1120	67 3.34 26	64 5.26 41	95 4.13 32	0 0	0 0	519 8.51 66	33 0.69 5	116 3.27 25	24 0.39 3	0.1 0.33	655	430			
T10A7																		
OLD HYDRO SUBAREA																		
29S/10E-3C 1 M 8-13-64	--	8.2	645	32 1.60 21	51 4.19 56	39 1.70 23	1 0.03	0 0	312 5.11 69	58 1.21 16	37 1.04 14	0 0	0.4 0.18	406 372	290			
29S/10E-3C 2 M 8-13-64	--	8.2	650	34 1.70 23	47 3.87 53	39 1.70 23	1 0.03	0 0	310 5.08 69	58 1.21 16	39 1.10 15	0 0	0.2 0.15	424 371	279			
29S/10E-3G 1 M 7-9-64	--	8.1	920	50 2.50 24	68 5.59 54	52 2.26 22	1 0.03	0 0	390 6.39 62	79 1.64 16	78 2.20 22	0 0	0.2 0.15	576 520	405			

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				mineral constituents in				parts per million			
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Nit- rate NO ₃	Fuo- ride F	Boron B	Silic- co SiO ₂	Total Hardness CaCO ₃	LD ₅₀ Expos- ure Exp. 105°C Computed	Mineral constituents in parts per million	
SAN LUIS OBISPO HYDRO SUBUNIT																			
CHORRO HYDRO SUBAREA																			
T1080																			
T1082																			
T1000																			
29S/11E-25D 1 M 7-14-64	--	7.6	1330	77 3.84 26	73 6.00 40	115 5.00 34	2 0.05	0	455 7.46 50	97 2.02 13	195 5.50 37	2 0.03	0.1	0.15	--	852 785	492		
29S/11E-25D 2 M 7-14-64	--	8.0	1875	143 7.14 36	77 6.33 32	140 6.09 31	2 0.05	0	377 6.18 31	134 2.79 14	379 10.69 54	7 0.11 1	0.1	0.15	--	1262 674	1068		
29S/11E-30D 1 M 7-14-64	--	8.0	1170	63 3.14 24	88 7.24 55	62 2.70 21	1 0.03	0	476 7.80 60	61 1.27 10	127 3.58 28	17 0.27 2	0.1	0.01	--	742 519	742 519		
29S/11E-32F 2 M 7-14-64	69	8.4	1270	114 5.69 39	81 6.66 46	51 2.22 15	1 0.03	12 0.40 3	635 10.41 72	18 0.37 3	114 3.21 22	1 0.02	0.1	0.15	--	950 618	704		
29S/11E-32M 1 M 7-14-64	69	8.3	2050	160 7.98 34	95 7.81 33	182 7.91 33	4 0.10	3 0.10	732 12.00 50	139 2.89 12	321 9.05 38	4 0.06	0.1	0.17	--	1352 790	1268		
LOS OSOS HYDRO SUBAREA																			
30S/10E-13A 1 M 7-8-64	--	7.5	370	21 1.05 27	11 (.90 23	43 1.87 49	1 0.03	0	47 0.77 21	4 0.08 2	79 2.23 60	41 0.66 18	0.1	0.02	--	266 223	98		
30S/10E-13A 2 M 7-8-64	--	7.2	420	23 1.15 26	12 0.99 23	51 2.22 51	1 0.03	0	46 0.75 18	19 0.40 9	98 2.76 65	21 0.34 8	0.1	0.05	--	272 107	248		

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				million milliequivalents per million				Mineral constituents in parts per million			
				Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	I.D.S. Expt. 105°C Computed	Total hardness as CaCO ₃		
SAN LUIS OBISPO HYDRO SUBUNIT T1080																			
SAN LUIS OBISPO CR HYDRO SUBAREA T1084																			
31S/12E-28N 1 M 8-11-64	--	7.7	745	30 1.50 17	6 0.49 6	156 6.78 76	4 0.10 1	0	303 4.97 57	102 2.12 24	56 1.58 18	4 0.06 1	0.2	0.41	--	498 508	100		
31S/12E-29F 1 M 1-22-64	--	8.2	780	79 3.94 41	51 4.19 44	30 1.30 14	3 0.08 1	0	434 7.11 73	86 1.79 18	28 0.79 8	0	0.4	0.08	22	541 513	407		
31S/12E-29L 1 M 1-22-64	--	7.5	775	68 3.39 36	52 4.28 45	41 1.78 19	3 0.08 1	0	448 7.34 75	68 1.42 15	35 0.99 10	0.5 0.01	0.6	0.12	30	536 518	384		
31S/12E-29P 1 M 1-22-64	--	7.5	910	86 4.29 38	54 4.44 39	59 2.57 23	2 0.05	0	495 8.11 71	106 2.21 19	39 1.10 10	0.9 0.01	0.2	0.20	25	606 616	437		
31S/12E-29P 2 M 1-22-64	--	7.3	1200	92 4.59 33	63 5.18 37	95 4.13 29	5 0.13 1	0	309 5.06 35	296 6.16 43	110 3.10 22	0.9 0.01	0.1	0.17	35	904 849	489		
31S/12E-32D 4 M 8-13-64	--	8.5	790	42 2.10 22	33 2.71 28	99 4.30 45	16 0.41 4	8 0.27 3	438 7.18 77	36 0.75 8	41 1.16 12	0	0.6	0.26	--	502 491	241		
31S/12E-32K 1 M 7- 8-64	--	8.4	1310	66 3.29 22	66 5.43 36	145 6.30 42	3 0.08 1	12 0.40 3	500 8.20 55	104 2.17 15	141 3.98 27	5 0.08 1	0.2	0.41	--	826 788	436		

TABLE E-1
 MINERAL ANALYSES OF GROUND WATER 1963/64
 CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million percent reactance value				Mineral constituents in parts per million					
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fluo- ride F	Boro- n B	Sili- co SiO ₂	Total Hardness CaCO ₃	
Date sampled				T10B0	T10B6	T1000											
SAN LUIS OBISPO HYDRO SUBUNIT				SAN LUIS OBISPO HYDRO UNIT													
PISMO HYDRO SUBAREA																	
31S/12E-34P 1 M 11-4-63	--	7.9	571	39 1.95 35	19 .56 28	46 2.00 36	2 0.05 1	0	128 2.10 38	65 1.35 24	75 2.12 38	0.0	0.4	0.11	27	353 336	176
32S/12E-12R 1 M 10-16-63	64	7.8	2050	168 8.38 30	21 1.73 6	390 16.96 61	22 0.56 2	0	1185 19.42 72	70 1.46 5	219 6.18 23	3.6 0.06	0.2	1.12	38	1440 1516	506
7-8-64	67	8.4	2700	202 10.08 30	126 10.36 31	290 12.61 38	12 0.31 1	13 0.43 1	531 8.70 26	677 14.10 42	355 10.01 30	0	0.4	1.00	--	2152 1937	1023
32S/12E-12R 2 M 10-16-63	64	8.1	1875	145 7.24 30	41 3.37 14	298 12.96 54	18 0.46 2	0	1198 19.64 82	4 0.08 17	149 4.20 17	6.4 0.10	0.2	1.52	48	1270 1300	531
32S/12E-13J 3 M 7-8-64	--	7.2	3000	230 11.48 31	107 8.80 24	385 16.74 45	6 0.15 1	0	200 3.28 9	536 11.16 31	766 21.60 59	32 0.52 1	1.6	0.28	--	2358 2162	1015
32S/12E-13P 1 M 7-8-64	--	8.2	1950	29 1.45 7	26 2.14 10	395 17.17 82	6 0.15 1	0	400 6.56 32	169 3.52 17	326 9.19 45	73 1.18 6	0.1	0.38	--	1156 1221	180

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				million milligrams per million				Mineral constituents in parts per million			
				Calcium Mg	Sodium K	Potassium CO ₃	Carbonate HCO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fibrous F	Boron B	Silica SiO ₂	I.O.S. Exp. 105°C Computed	Total hardness CaCO ₃			
SAN LUIS OBISPO HYDRO UNIT																			
T1000																			
ARROYO GRANDE HYDRO SUBUNIT																			
T1000																			
ARROYO GRANDE HYDRO SUBAREA																			
T1000																			
12N/35W-30M 1 S 6-19-64	61	7.8	1775	89 4.44 20	178 14.64 66	70 3.04 14	0.08	3	0	563 9.23 41	487 10.14 45	109 3.07 14	0	0.2	0.17	--	1334 1213	955	
12N/35W-31H 1 S 6-19-64	70	7.4	980	64 3.19 31	47 3.87 38	72 3.13 30	4 0.10 1	0	246 4.03 40	198 4.12 41	69 1.95 19	3 0.05	0.2	0.18	--	638 578	353		
12N/35W-34G 4 S 6-24-64	64	7.6	1160	104 5.19 43	55 4.52 37	55 2.39 20	3 0.08 1	0	377 6.18 50	183 3.81 31	74 2.09 17	18 0.29 2	0.2	0.08	--	730 678	486		
12N/35W-35E 3 S 6-24-64	66	7.4	1100	94 4.69 39	59 4.85 40	57 2.48 20	3 0.08 1	0	366 6.00 49	197 4.10 34	71 2.00 16	5 0.08 1	0.2	0.10	--	716 666	477		
12N/35W-35H 2 S 7-17-64	64	8.2	1090	110 5.49 42	60 4.93 38	60 2.61 20	4 0.10 1	0	418 6.85 53	194 4.04 31	71 2.00 15	4 0.06	0.1	0.03	--	770 709	521		
31S/12E-32D 2 M 8-11-64	--	7.4	2900	190 9.48 28	97 7.98 24	370 16.09 48	10 0.26 1	0	565 9.26 28	94 1.96 6	777 21.91 66	0	1.2	0.39	--	1838 1817	874		
31S/14E-31K 1 M 6-3-64	--	7.6	789	90 4.49 49	43 3.54 38	27 1.17 13	2 0.05 1	0	383 6.28 67	122 2.54 27	18 0.51 5	2.4 0.04	0.5	0.04	30	526 523	402		
31S/14E-32G 3 M 6-3-64	59	8.0	838	78 3.89 42	43 3.54 31	40 1.74 19	2 0.05 1	0	296 4.85 54	157 3.27 36	32 0.90 10	1.5 0.02	0.5	0.03	--	554 500	372		

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million percent reactance value				Mineral constituents in parts per million					
				Calcium Mg	Magne- sium	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlor- ide Cl	Ni- trate NO ₃	Fluo- ride F	Boron B	Sili- ca SiO ₂	Total Hardness at 25°C	Total Hardness at 100°C
SAN LUIS OBISPO HYDRO UNIT T1000																	
ARROYO GRANDE HYDRO SUBUNIT T100C																	
ARROYO GRANDE HYDRO SUBAREA T10C1																	
32S/12E-13J 1 M 6-18-64	64	8.0	2450	163 8.13 27	98 8.06 27	302 13.13 44	14 0.36 1	0	805 13.19 44	246 5.12 17	418 11.79 39	4 0.06	0.2	0.84	--	1766	810
32S/13E-1H 1 M 6-3-64	--	8.5	887	103 5.14 49	50 4.11 39	29 1.26 12	2 0.05	26 0.87 8	338 5.54 54	147 3.06 30	29 0.82 8	0.5 0.01	0.6	0.03	--	1642	463
32S/13E-12C 1 M 6-3-64	--	8.1	992	100 4.99 43	63 5.18 45	30 1.30 11	2 0.05	0	410 6.72 59	172 3.58 32	35 0.99 9	3 0.05	0.5	0.09	--	676	509
32S/13E-12C 4 M 6-3-64	--	8.0	1103	101 5.04 41	68 5.59 45	40 1.74 14	2 0.05	0	290 4.75 39	300 6.25 51	46 1.30 11	0	0.5	0.10	--	808	532
32S/13E-12N 1 M 6-3-64	64	7.1	1889	263 13.12 54	108 8.88 37	49 2.13 9	2 0.05	0	540 8.85 37	644 13.41 56	62 1.75 7	0.5 0.01	0.7	0.17	--	1544	1101
32S/13E-12O 2 M 6-3-64	--	7.1	984	92 4.59 43	48 3.95 37	46 2.00 19	1 0.03	0	287 4.70 44	188 3.91 37	71 2.00 19	0	0.7	0.08	--	674	427
32S/13E-13C 2 M 6-3-64	64	8.2	1059	87 4.34 33	73 6.00 46	60 2.61 20	3 0.08	0	508 8.33 63	163 3.39 26	50 1.41 11	6.0 0.10 1	0.4	0.23	4.0	750	517
32S/13E-15K 1 M 6-18-64	--	6.7	650	35 1.75 25	17 1.40 20	88 3.83 54	3 0.08	0	57 0.93 14	41 0.85 12	175 4.94 72	6 0.10 1	0.4	0.08	--	403	158
																393	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million percent				parts per million				Mineral constituents in parts per million			
				Calcium	Magne- sium	Sodium	Potas- sium	Carbon- ate	Bicar- bonate	Sulfate	Chlo- ride	Ni- trate	Fluo- ride	Boron	Sili- ca	Total	Fluo- ride	Boron	Sili- ca
Date sampled				Co	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂	Computed	Hardness as CaCO ₃		
SAN LUIS OBISPO HYDRO UNIT																			
T1000																			
ARROYO GRANDE HYDRO SUBUNIT				T1000															
ARROYO GRANDE HYDRO SUBAREA				T1000															
				T1000				T1000				T1000				T1000			
32S/13E-15L 1 M	73	7.7	380	25	9	45	3	0	117	19	55	0	0.1	0.05	--	244	100		
6-18-64				1.25	0.74	1.96	0.08	0.38	1.92	0.40	1.55	0.40				214			
				31	18	49	2	2	50	10	40								
32S/13E-19J 2 M	--	7.0	290	12	4	48	2	0	30	2	46	69	0.1	0.05	21	248	47		
3- 6-64				0.60	0.33	2.09	0.05	0.05	0.49	0.04	1.30	1.11				219			
				20	11	68	2	2	17	1	44	38							
32S/13E-19L 1 M	--	7.1	400	24	8	50	1	0	45	37	50	76	0.1	0.02	26	198	93		
3- 6-64				1.20	0.66	2.17	0.03	0.03	0.74	0.77	1.41	1.23				294			
				30	16	53	1	1	18	19	34	30							
32S/13E-19P 1 M	--	7.3	300	17	6	38	2	0	35	5	46	54	0.1	0.05	26	211	67		
3- 7-64				0.85	0.49	1.65	0.05	0.05	0.57	0.10	1.30	0.87				211			
				28	16	54	2	2	20	4	46	31							
32S/13E-19O 1 M	--	6.5	450	22	10	62	2	0	39	36	66	80	0.1	0.05	11	336	96		
3- 6-64				1.10	0.82	2.70	0.05	0.05	0.64	0.75	1.86	1.29				308			
				24	18	58	1	1	14	17	41	28							
32S/13E-19R 1 M	--	6.8	630	43	16	73	2	0	18	74	76	155	0.1	0.07	1	449	174		
3- 6-64				2.15	1.32	3.17	0.05	0.05	0.30	1.54	2.14	2.50				449			
				32	20	47	1	1	5	24	33	39							
32S/13E-20M 1 M	--	7.1	500	23	8	35	80	0	123	14	92	20	0.1	0.05	5	337	91		
3- 4-64				1.15	0.66	1.52	2.05	0.05	2.02	0.29	2.59	0.32				338			
				21	12	28	38	38	39	6	50	6							
32S/13E-20M 3 M	68	7.1	700	28	29	78	1	0	28	85	82	142	0.1	0.05	27	542	189		
3- 4-64				1.40	2.38	3.39	0.03	0.03	0.46	1.77	2.31	2.29				486			
				19	33	47			7	26	34	34							

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million				Mineral constituents in parts per million									
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fre- e F	Borax B	Sil- ica SiO ₂	T.D.S. Total Dissolved Solids Computed C.O.D.	Major Ions C.O.D.
SAN LUIS OBISPO HYDRO UNIT T1000																	
ARROYO GRANDE HYDRO SUBUNIT T1000																	
ARROYO GRANDE HYDRO SUBAREA T1000																	
32S/13E-20M 3 M 6-17-64	63	6.7	650	26 1.30 19	28 2.30 34	74 3.22 47	1 0.03	0	28 0.46 7	77 1.60 24	85 2.40 36	133 2.15 33	0.1	0.05	--	470 438	180
32S/13E-20N 1 M 6-17-64	--	7.2	900	71 3.54 37	40 3.29 35	60 2.61 27	3 0.08 1	0	170 2.79 29	135 2.81 29	78 2.20 23	116 1.87 19	0.1	0.10	--	630 587	342
32S/13E-20N 5 M 3- 5-64	--	7.0	600	29 1.45 24	19 1.56 26	70 3.04 50	2 0.05 1	0	38 0.62 10	93 1.94 32	63 1.78 29	107 1.73 29	0.1	0.05	28	450 430	151
32S/13E-22Q 1 M 6- 4-64	64	7.6	2163	290 14.47 49	131 10.77 37	93 4.04 14	4 0.10	0	555 9.10 31	719 14.97 52	115 3.24 11	102 1.65 6	0.8	0.20	35	1871 1763	1263
32S/13E-22R 1 M 6- 4-64	64	7.8	2020	235 11.73 43	147 12.09 44	82 3.57 13	7 0.18 1	0	752 12.33 45	584 12.16 44	99 2.79 10	4.6 0.07	0.6	0.16	47	1671 1576	1192
32S/13E-23F 1 M 6- 4-64	64	7.3	1827	213 10.63 44	117 9.62 44	92 4.00 16	3 0.08	0	724 11.87 48	469 9.76 40	102 2.88 12	8.0 0.13 1	0.5	0.24	42	1432 1403	1013
32S/13E-24A 2 M 6- 4-64	64	7.7	1240	166 8.28 52	57 4.69 30	64 2.78 18	1 0.03	0	440 7.21 46	329 6.85 44	59 1.66 11	0	0.4	0.18	27	980 920	649
32S/13E-24D 1 M 6- 4-64	66	7.7	1360	174 8.68 50	60 4.93 28	82 3.57 21	5 0.13 1	0	529 8.67 51	308 6.41 38	71 2.00 12	0	0.4	0.16	31	960 992	681

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (IT)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos of 25°C)	Mineral constituents in parts per million				Mineral constituents in parts per million									
				Calcium M.g	Magne- sium M.g	Sodium No	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Nit- rate NO ₃	F ue- ride F	Bere- n B	Silic- co- SIO ₂	Tota- hardness as CaCO ₃	
ARROYO GRANDE HYDRO SUBUNIT T1000																	
ARROYO GRANDE HYDRO SUBAREA T1000																	
32S/13E-24DS1 M 6- 4-64	64	7.8	1656	155 7.73 36	114 9.38 44	93 4.04 19	2 0.05	0	10.60 51	647 51	344 7.16 34	104 2.93 14	5.6 0.09	0.20	40	1239 1177	856
32S/13E-28A 1 M 6-17-64	--	7.6	2177	230 11.48 43	106 8.72 32	152 6.61 25	6 0.15 1	0	11.16 42	681 42	585 12.18 46	118 3.33 12	3.3 0.05	0.02	--	1694 1536	1011
32S/13E-28E 1 M 6-17-64	66	7.7	1041	108 5.39 45	52 4.28 36	49 2.13 18	2 0.05	0	3.90 6.39 55	390 6.39 55	157 3.27 28	55 1.55 13	25 0.40 3	0.16	--	684 640	484
32S/13E-28E 5 M 6-17-64	--	7.8	1061	106 5.29 45	53 4.36 37	50 2.17 18	2 0.05	0	3.92 6.42 55	392 6.42 55	157 3.27 28	56 1.58 14	26 0.42 4	0.20	--	705 643	483
32S/13E-29D 1 M 6-17-64	--	7.6	971	108 5.39 49	46 3.78 34	42 1.83 17	3 0.08	0	4.21 6.90 63	421 6.90 63	143 2.98 27	32 0.90 8	6 0.10 1	0.05	--	626 587	459
32S/13E-29D 2 M 6-17-64	66	7.1	650	48 2.40 36	19 1.56 23	61 2.65 40	2 0.05 1	0	1.13 17	69 1.13 17	62 1.29 20	81 2.28 35	116 1.87 28	0.08	--	478 423	198
32S/13E-29D 3 M 6-17-64	--	7.6	575	32 1.60 31	15 1.23 24	51 2.22 44	2 0.05 1	0	0.75 15	46 0.75 15	41 0.85 17	68 1.92 38	95 1.53 30	0.50	--	408 327	142
32S/13E-29E 1 M 7- 3-64	--	7.6	930	69 3.44 39	33 2.71 31	58 2.52 29	3 0.08 1	0	1.24 2.03 23	124 2.03 23	134 2.79 32	72 2.03 23	118 1.90 22	0.10	29	563 577	308

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million										Mineral constituents in parts per million				
				Calcium Co	Magne- sium Mg	Sodium No	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	N Nitro- gen N ₃	Flu- oride F	Bor- on B	Sul- phur S	I.P.S. Explosive as Calcs	Per- chlor- ate ClO ₄	
SAN LUIS OBISPO HYDRO UNIT																		
ARROYO GRANDE HYDRO SUBUNIT				T1000														
ARROYO GRANDE HYDRO SUBAREA				T10C1														
32S/13E-29E 2 M 7- 3-64	--	7.4	1013	82 4.09 42	37 3.04 31	57 2.48 26	3 0.08 1	0	179 2.93 30	136 2.83 29	82 2.31 24	100.0 1.61 17	0.1	0.20	29	595 614	357	
32S/13E-29E 3 M 6-17-64	66	7.6	900	69 3.44 35	47 3.87 39	58 2.52 25	3 0.08 1	0	191 3.13 32	134 2.79 29	73 2.06 21	107 1.73 18	0.1	0.13	--	644 585	366	
7- 3-64	--	7.4	977	82 4.09 47	38 3.13 36	32 1.39 16	3 0.08 1	0	182 2.98 34	133 2.77 32	72 2.03 23	59.0 0.95 11	0.2	0.20	26	566 535	361	
32S/13E-29E 5 M 6-17-64	66	7.1	755	62 3.09 39	28 2.30 29	56 2.43 31	3 0.08 1	0	97 1.59 20	84 1.75 22	69 1.95 25	156 2.52 32	0.2	0.08	--	558 506	270	
32S/13E-29G 2 M 6-17-64	64	8.2	952	102 5.09 46	50 4.11 38	39 1.70 16	2 0.05 1	0	390 6.39 58	146 3.04 27	44 1.24 11	25.5 0.41 4	0.5	0.15	--	642 601	460	
32S/13E-30H 2 M 6-17-64	66	7.6	770	59 2.94 38	28 2.30 29	58 2.52 32	3 0.08 1	0	110 1.80 23	87 1.81 23	73 2.06 26	133 2.15 27	0.1	0.05	--	536 495	262	
32S/13E-30L 2 M 6-17-64	66	7.5	1057	102 5.09 45	48 3.95 35	52 2.26 20	2 0.05 1	0	305 5.00 45	140 2.91 26	97 2.74 25	26 0.42 4	0.4	0.30	--	658 618	452	
32S/13E-30R 1 M 6-17-64	--	7.2	806	58 2.89 37	26 2.14 28	61 2.65 34	3 0.08 1	0	71 1.16 15	117 2.64 32	70 1.97 26	123 1.98 26	0.3	0.28	--	533 493	252	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				million milliequivalent value				Mineral constituents in parts per million			
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Total hardness as CaCO ₃	SiO ₂	Iron	Copper	Zinc
Date sampled				Co	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	Fe	Cu	Zn		
SAN LUIS OBISPO HYDRO UNIT																			
T1000																			
ARROYO GRANDE HYDRO SUBUNIT																			
T100C																			
ARROYO GRANDE HYDRO SUBAREA																			
T1000																			
32S/13E-30R 2 M 6-17-64	--	7.1	896	69 3.44 40	30 2.47 29	61 2.65 31	0.05	2	0	88 1.44 17	122 2.54 29	76 2.14 25	0.2	0.40	--	629 560	296		
32S/13E-30R11 M 6-17-64	--	7.8	710	55 2.74 38	21 1.73 24	63 2.74 38	0.05	2	0	69 1.13 15	121 2.52 34	61 1.72 24	0.1	0.10	--	580 477	224		
32S/13E-31H 1 M 7-7-64	--	8.4	1640	108 5.39 29	114 9.38 51	80 3.48 19	0.08	3	7 0.23 1	440 7.21 40	334 6.95 39	128 3.61 20	0.1	0.17	--	1206 991	739		
32S/13E-32A 1 M 6-4-64	--	7.1	822	70 3.49 40	38 3.13 36	46 2.00 23	0.05	2	0	39 0.64 8	185 3.85 46	56 1.58 19	0.3	0.04	41	560 601	331		
32S/13E-32C 2 M 6-17-64	64	7.9	555	33 1.65 29	30 2.47 43	36 1.57 27	0.05	2	0	209 3.43 60	57 1.19 21	40 1.13 20	0.2	0.21	--	290 302	206		
32S/13E-32E 2 M 6-17-64	64	7.7	928	57 2.84 32	31 2.55 29	79 3.43 39	0.05	2	0	59 0.97 11	142 2.96 34	87 2.45 28	0.2	0.26	--	618 577	270		
32S/13E-32E13 M 2-19-64	67	7.3	940	86 4.29 39	63 5.18 47	35 1.52 14	0.05	2	0	405 6.64 59	178 3.71 33	32 0.90 8	0.1	0.09	30	656 625	474		
32S/13E-32H 1 M 6-4-64	--	7.7	1252	130 6.49 44	66 5.43 37	63 2.74 19	0.05	2	0	307 5.03 35	230 4.79 33	85 2.40 17	0.6	0.08	35	860 899	596		

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million reactance value				Mineral constituents in parts per million					
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	N Nitrate NO ₃	Fuc- tide F	Boron B	Sil- co SiO ₂	I.O.S. Exp.105°C Exp.105°C Computed	Total hardness as CaCO ₃
SAN LUIS OBISPO HYDRO UNIT																	
T1000																	
ARROYO GRANDE HYDRO SUBUNIT																	
T1000																	
ARROYO GRANDE HYDRO SUBAREA																	
T1001																	
T1000																	
32S/13E-32L 2 M 7-7-64	69	8.1	1046	56 2.79 23	91 7.48 63	36 1.57 13	2 0.05	0	414 6.79 57	192 4.00 34	37 1.04 9	0	0.2	0.05	--	724 618	514
32S/13E-32L 5 M 7-7-64	--	8.0	880	53 2.64 28	61 5.02 53	40 1.74 18	2 0.05	0	232 3.80 41	121 2.52 27	57 1.61 17	80 1.29 14	0.2	0.05	--	610 528	383
32S/13E-32L 8 M 6-17-64	--	8.0	1007	114 5.69 48	58 4.77 40	33 1.43 12	2 0.05	0	444 7.28 63	148 3.08 27	39 1.10 10	1.2 0.02	0.3	0.11	--	637 614	523
32S/13E-32L14 M 2-17-64	--	7.8	1120	107 5.34 39	61 5.02 36	76 3.30 24	5 0.13	0	423 6.93 50	216 4.50 32	75 2.12 15	21 0.34 2	0.2	0.09	30	774 799	518
32S/13E-32L18 M 2-18-64	--	8.0	1500	154 7.68 41	86 7.07 38	89 3.87 21	4 0.10	0	486 7.97 42	288 6.00 32	123 3.47 18	85 1.37 7	0.1	0.14	27	1144 1095	738
32S/13E-32M 1 M 7-7-64	--	8.1	1200	77 3.84 28	98 8.06 58	46 2.00 14	2 0.05	0	446 7.31 52	233 4.85 34	59 1.66 12	22 0.35 2	0.1	0.08	--	844 756	595
32S/13E-33A 3 M 6-24-64	--	7.9	2000	212 10.58 42	137 11.27 45	78 3.39 13	2 0.05	0	598 9.80 38	545 11.35 44	119 3.36 13	81 1.31 5	0.2	0.12	--	1614 1468	1093
32S/13E-33E 3 M 6-18-64	--	8.0	1360	138 6.89 42	85 6.99 43	54 2.35 14	2 0.05	0	376 6.16 38	300 6.25 39	60 1.69 10	125 2.02 13	0.2	0.15	--	1042 949	695

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million						Mineral constituents in parts per million								
				Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	TDS Total Dissolved Solids EPA 105°C Computed	Total Hardness EPA 105°C Coluys	
SAN LUIS OBISPO HYDRO UNIT																		
ARROYO GRANDE HYDRO SUBUNIT																		
T100C																		
ARROYO GRANDE HYDRO SUBAREA																		
T1000																		
32S/13E-33F 1 M 6-19-64	60	7.6	1370	90 4.49 28	113 9.29 57	55 2.39 15	0.08	3	0	472 7.74 48	288 6.00 38	53 1.49 9	0.74 5	0.2	0.17	--	934 880	690
32S/13E-33G 1 M 6-4-64	64	7.5	1761	226 11.28 49	105 8.64 38	69 3.00 13	0.08	3	0	534 8.75 38	498 10.37 46	100 2.82 12	50 0.81 4	0.8	0.09	35	1385 1349	997
32S/13E-33K 1 M 6-4-64	64	7.4	1931	240 11.98 47	126 10.36 40	74 3.22 13	0.08	3	0	588 9.64 38	540 11.24 45	110 3.10 12	71 1.15 5	0.8	0.08	37	1599 1491	1118
32S/13E-33K 3 M 6-4-64	64	7.9	1867	229 11.43 47	116 9.54 39	74 3.22 13	0.05	2	0	567 9.29 39	510 10.62 44	105 2.96 12	62 1.00 4	0.9	0.08	34	1524 1412	1049
32S/13E-33M 2 M 6-18-64	62	8.1	1730	208 10.38 45	117 9.62 42	67 2.91 13	0.05	2	0	562 9.21 40	481 10.01 44	74 2.09 9	93 1.50 7	0.6	0.10	--	1444 1319	1001
32S/13E-34G 2 M 6-24-64	64	7.4	1650	121 6.04 31	77 6.33 33	162 7.04 36	0.05	2	0	352 5.77 30	403 8.39 44	167 4.71 24	25 0.40 2	0.4	0.18	--	1044 1131	619
32S/14E-7J 1 M 6-4-64	68	7.5	1372	112 5.59 33	86 7.07 42	94 4.09 24	0.08	3	0	483 7.92 48	263 5.48 33	105 2.96 18	7.2 0.12 1	0.7	0.24	43	976 952	634
32S/14E-7K 1 M 6-4-64	--	7.0	1623	145 7.24 37	103 8.47 43	90 3.91 20	0.20	8	0	493 8.08 40	403 8.39 42	123 3.47 17	14 0.23 1	0.7	0.24	53	1210 1182	786

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million										Mineral constituents in parts per million							
				T10C0					T10C1					T10C2					T1000		
Date sampled				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Bicarbonate CO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Silica SiO ₂	I.D.S. Evap 105°C Computed	Total hardness as CaCO ₃	
SAN LUIS OBISPO HYDRO UNIT																					
ARROYO GRANDE HYDRO SUBUNIT																					
ARROYO GRANDE HYDRO SUBAREA																					
32S/14E-8N 1 M 6-4-64	--	7.2	1783	159 7.93 35	135 11.10 49	82 3.57 16	2 0.05	0	511 8.38 37	503 10.47 47	121 3.41 15	9.4 0.15 1	0	0.16	52	1407 1315	952				
32S/14E-18F 3 M 6-4-64	--	7.5	1525	110 5.49 28	116 9.54 49	105 4.57 23	--	0	695 11.59 59	205 4.27 22	106 2.99 15	50 0.81 4	0.2	0.40	30	1084 1064	752				
32S/14E-18F 4 M 6-4-64	--	7.7	1350	115 5.74 35	83 6.83 41	91 3.96 24	--	0	610 10.00 60	179 3.73 22	85 2.40 14	28 0.45 3	0.2	0.22	30	934 911	629				
32S/14E-19A 1 M 6-4-64	64	7.6	1020	66 3.29 26	80 6.58 53	59 2.57 21	1 0.03	0	451 7.39 60	165 3.44 28	50 1.41 11	8.4 0.14 1	0.2	0.13	32	724 683	494				
32S/14E-19D 3 M 6-4-64	--	7.7	2750	208 10.38 32	163 13.41 41	198 8.61 27	--	0	487 7.98 25	245 5.10 16	642 18.10 56	59 0.95 3	0.2	0.22	35	2150 1790	1190				
NIPOMO MESA HYDRO SUBAREA																					
11N/34W-8H 1 S 7-8-64	69	7.4	1400	95 4.74 28	82 6.74 40	120 5.22 31	4 0.10 1	0	463 7.59 44	288 6.00 35	123 3.47 20	0	0.2	0.12	--	942 940	574				
11N/34W-8J 1 S 7-8-64	60	7.4	1550	170 8.48 43	82 6.74 34	100 4.35 22	2 0.05	0	494 8.10 46	183 3.81 22	190 5.36 31	15 0.24 1	0.2	0.10	--	1012 985	762				

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million										Mineral constituents in parts per million				
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total Hardness CaCO ₃ eq		
ARROYO GRANDE HYDRO SUBUNIT														T1000				
NIPOMO MESA HYDRO SUBAREA														T1002				
T1000														T1000				
11N/34W-80 1 S 6-30-64	65	7.7	1200	103 5.14 38	54 4.44 33	91 3.96 29	1 0.03	0	390 6.39 47	168 3.50 25	125 3.53 26	20 0.32 2	0.2	0.12	--	774 754	479	
11N/34W-80 2 S 6-30-64	66	7.5	1280	88 4.39 33	60 4.93 37	94 4.09 30	1 0.03	0	367 6.02 46	147 3.06 23	135 3.81 29	18 0.29 2	0.2	0.07	--	802 724	466	
11N/34W-80 3 S 6-30-64	66	7.7	1210	92 4.59 35	56 4.61 35	92 4.00 30	1 0.03	0	380 6.23 47	156 3.25 25	124 3.50 26	17 0.27 2	0.2	0.07	--	758 725	460	
11N/34W-80 4 S 6-30-64	67	7.5	1280	47 2.35 17	96 7.90 55	91 3.96 28	1 0.03	0	481 7.88 55	151 3.14 22	100 2.82 20	31 0.50 3	0.2	0.09	--	814 754	513	
11N/34W-8R 1 S 6-30-64	67	7.5	1470	101 5.04 31	68 5.59 35	125 5.44 34	4 0.10 1	0	445 7.29 44	183 3.81 23	184 5.19 32	9 0.15 1	0.2	0.09	--	924 893	532	
11N/34W-8R 2 S 6-30-64	65	7.6	1460	135 6.74 40	67 5.51 33	100 4.35 26	2 0.05	0	538 8.82 53	111 2.31 14	197 5.56 33	4 0.06	0.2	0.09	--	914 881	613	
11N/34W-9M 2 S 7-8-64	68	7.3	1500	76 3.79 23	103 8.47 51	98 4.26 26	2 0.05	0	452 7.41 45	189 3.93 24	184 5.19 31	2 0.03	0.2	12.00	--	960 888	613	
11N/34W-9N 1 S 6-30-64	66	7.3	1440	65 3.24 20	107 8.80 55	93 4.04 25	1 0.03	0	454 7.44 45	166 3.46 21	190 5.36 33	6 0.10 1	0.2	0.09	--	942 851	602	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million										Mineral constituents in parts per million				
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fluo- ride F	Baron B	Sili- co SiO ₂	I.O.S. Exp-100°C as Exp-105°C Computed Cob-13	Total hardness as CaCO ₃	
SAN LUIS OBISPO HYDRO UNIT																		
ARROYO GRANDE HYDRO SUBUNIT T100C																		
NIPOMO MESA HYDRO SUBAREA T1002																		
11N/34W-9N 2 S 6-30-64	66	7.4	1270	119 5.94 42	58 4.77 34	80 3.48 24	1 0.03	0	400 6.56 46	207 4.31 30	119 3.36 23	7 0.11 1	0.2	0.09	--	832 788	536	
11N/34W-17A 1 S 6-30-64	73	7.4	1290	115 5.74 38	60 4.93 33	99 4.30 29	3 0.08 1	0	437 7.16 48	170 3.54 24	142 4.00 27	13 0.21 1	0.2	0.09	--	836 817	534	
11N/34W-17B 1 S 6-30-64	65	7.4	1240	99 4.94 35	60 4.93 35	97 4.22 30	2 0.05	0	417 6.83 48	168 3.50 25	126 3.55 25	24 0.39 3	0.2	0.09	--	830 781	494	
7- 8-64	67	7.4	1300	70 3.49 24	85 6.99 48	93 4.04 28	3 0.08 1	0	423 6.93 47	173 3.60 25	140 3.95 27	12 0.19 1	0.2	0.10	--	900 784	524	
11N/34W-17B 2 S 6-30-64	66	7.4	1300	117 5.84 39	61 5.02 34	94 4.09 27	1 0.03	0	470 7.70 51	173 3.60 24	122 3.44 23	27 0.44 3	0.2	0.09	--	860 826	543	
11N/34W-17B 3 S 6-30-64	66	7.5	1240	99 4.94 35	60 4.93 35	93 4.04 29	1 0.03	0	413 6.77 49	163 3.39 24	122 3.44 25	21 0.34 2	0.2	0.07	--	790 762	494	
11N/34W-17N 3 S 7-17-64	--	7.1	220	13 0.65 29	2 0.16 7	32 1.39 62	1 0.03 1	0	51 0.84 38	7 0.15 7	35 0.99 45	15 0.24 11	0.1	0	--	168 130	41	
11N/35W-7R 1 S 6-18-64	70	7.5	1241	138 6.89 49	50 4.11 29	66 2.87 21	3 0.08 1	0	232 3.80 27	421 8.77 63	46 1.30 9	2.3 0.04	0.5	0.15	--	986 84.1	550	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (IT)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent				Mineral constituents in parts per million				
				Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total Dissolved Solids Computed
ARROYO GRANDE HYDRO SUBUNIT T10C0																
NIPOMO MESA HYDRO SUBAREA T10C2																
11N/35W-9P 1 S 12-6-63	--	7.0	250	14 0.70 27	3 6.25 10	36 1.57 61	2 0.05 2	0	47 0.77 31	15 0.31 12	48 1.35 54	0.1	0.05	32	179	48
11N/35W-10M 1 S 6-18-64	--	7.3	280	9 0.45 19	4 0.33 14	36 1.57 65	2 0.05 2	0	52 0.85 35	2 0.04 2	51 1.44 59	0.1	0	--	180	39
11N/35W-10R 1 S 6-18-64	--	7.9	236	7 0.35 17	3 0.25 17	32 1.39 69	1 0.03 1	0	31 0.51 25	5 0.10 5	47 1.33 65	0	0	--	168	30
11N/35W-11B 1 S 6-18-64	72	7.6	232	10 0.50 25	4 0.33 17	26 1.13 57	1 0.03 2	0	41 0.67 33	4 0.08 4	45 1.27 62	0.3	0	--	176	42
11N/35W-11J 1 S 6-18-64	72	6.8	254	9 0.45 21	5 0.41 19	30 1.30 59	1 0.03 1	0	37 0.61 28	5 0.10 5	48 1.35 63	0.1	0	--	192	43
11N/35W-12F 1 S 12-6-63	--	7.1	230	11 0.55 24	4 0.33 14	32 1.39 60	1 0.03 1	0	52 0.85 38	7 0.15 7	44 1.24 55	0.2	0.03	39	166	44
6-18-64	71	6.9	447	27 1.35 33	10 0.82 20	42 1.83 45	2 0.05 1	0	83 1.36 34	17 0.35 9	82 2.31 57	0.3	0.06	--	295	109
11N/35W-13D 1 S 6-18-64	74	7.5	1143	77 3.84 32	50 4.11 34	91 3.96 33	3 0.08 1	0	322 5.28 44	174 3.62 30	106 2.99 25	0.1	0	--	724	398
															661	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent reactance value				Mineral constituents in parts per million																				
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fos- phate P	Silic- a SiO ₂	Sol- uble Sulfate SO ₄	Stron- tium Sr	Bar- ium Ba	Flu- oride F	Chlo- ride Cl	Ni- trate NO ₃	Amo- nium NH ₄	Iron Fe	Cu Cu	Zn Zn	Mn Mn	Pb Pb	Other Other	Total Total				
ARROYO GRANDE HYDRO SUBUNIT																																
NIPOMO MESA HYDRO SUBAREA																																
T10C0																																
T10C2																																
11N/35W-140 1 S 6-18-64	--	7.9	568	40 2.00 37	19 1.56 29	42 1.83 34	0.5 0.05	2 1	0	132 2.16 40	75 1.56 29	56 1.58 29	8.5 0.14 3	0.1	0.05	--	395 308	178														
12N/35W-27M 1 S 6-24-64	--	7.1	760	43 2.15 27	35 2.88 36	65 2.83 36	3 0.08	3 1	0	135 2.21 28	35 0.73 9	169 4.77 60	12 0.19 2	0.2	0.08	--	572 429	252														
12N/35W-29N 1 S 6-18-64	62	7.2	1727	206 10.28 50	91 7.48 36	66 2.87 14	2 0.05	2	0	423 6.93 35	480 9.99 50	112 3.16 16	0	0.7	0	--	1474 1166	889														
12N/35W-29R 1 S 4-14-64	--	6.2	205	8 0.40 19	2 6.16 7	36 1.57 71	1 0.03	1	0	37 0.61 29	4 0.08 4	23 0.65 31	46 0.74 36	0.2	0.07	31	174 169	28														
6-18-64	--	7.4	240	8 0.40 19	2 0.16 8	34 1.48 71	1 0.03	1	0	28 0.46 22	3 0.06 3	27 0.76 36	52 0.84 40	0.1	0.13	--	177 141	28														
12N/35W-32P 1 S 6-19-64	--	7.6	370	13 0.65 17	4 0.33 9	65 2.83 73	2 0.05	2	0	63 1.03 28	11 0.23 6	76 2.14 58	20 0.32 9	0.2	0.15	--	210 222	47														
12N/35W-33J 1 S 6-18-64	--	7.1	244	8 0.40 19	5 0.41 20	28 1.22 59	2 0.05	2	0	29 0.48 23	3 0.06 3	46 1.30 62	17 0.27 13	0	0.04	--	206 123	41														

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				Mineral constituents in parts per million				Mineral constituents in parts per million					
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total Hardness Expressed as CaCO ₃	Total Hardness Expressed as CaCO ₃
30S/18E-12N 1 S 10-15-63	60	7.6	560	35 1.75	17 1.40	71 3.09	0.03	1	0	210 3.44	71 1.48	34 0.96	29 0.47	0.4	0.28	382 388	158
11N/26W-2G 1 S 10-18-63	62	8.1	2700	46 2.30	33 2.71	633 27.52	0.10	4	0	238 3.90	805 16.76	389 10.97	22 0.35	0.6	1.66	2028 2071	251
29S/17E-13R 1 M 10-10-63	66	7.8	800	34 1.70	18 1.48	125 5.44	0.03	1	0	162 2.66	133 2.77	80 2.26	67 1.08	0.6	0.63	570 570	159
30S/18E-1D 1 M 10-18-63	66	7.5	2700	208 10.38	81 6.66	435 18.91	0.05	2	0	148 2.43	1119 23.30	304 8.57	84 1.35	0.4	1.51	2490 2331	853
30S/18E-2N 1 M 10-10-63	66	8.0	670	48 2.40	28 2.30	62 2.70	0.03	1	0	202 3.31	125 2.60	41 1.16	34 0.55	0.1	0.32	494 470	235
30S/18E-13M 1 M 10-15-63	68	8.0	730	32 1.60	17 1.40	125 5.44	0.05	2	0	253 4.15	141 2.94	41 1.16	18 0.29	0.6	0.56	520 521	150
30S/18E-14A 1 M 10-15-63	58	7.4	330	26 1.30	10 0.82	10 0.43	0.13	5	0	118 1.93	29 0.60	5 0.14	2.2 0.04	0.4	0.05	161 160	106
30S/18E-14A 2 M 10-15-63	66	7.7	560	54 2.69	17 1.40	50 2.17	0.15	6	0	190 3.11	33 0.69	41 1.16	84 1.35	0.4	0.16	386 413	205

T1100

CARRIZO PLAIN HYDRO UNIT

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million										Mineral constituents in parts per million				
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fer- ride Fe	Brom- ide Br	Sul- fate SO ₄	T. Tot. Exp. (100°C) Hardness as CaCO ₃		
30S/19E-8E 1 M 10-14-63	64	7.7	5400	242 12.08	167 13.73	1100 47.83	0.20	8 0.20	0	180 2.95	216 4.50	766 21.60	182 2.94	0.8	2.44	24	4980 2797	1292
30S/19E-19K 1 M 10-16-63	68	7.6	6900	214 10.68	192 15.79	1575 68.48	0.20	8 0.20	0	232 3.60	3247 67.60	798 22.50	16 0.26	0.6	1.17	16	6414 6182	1325
30S/19E-19L 1 M 10-11-63	68	7.5	3150	433 21.61	102 8.39	430 18.70	0.05	2 0.05	0	149 2.44	2243 46.70	5 0.14	6.6 0.11	1.0	1.70	40	3384 3338	1501
30S/19E-19P 1 M 10-11-63	64	7.8	840	41 2.05	24 1.97	124 5.39	0.23	9 0.23	0	189 3.10	235 4.89	52 1.47	1.3 0.02	3.0	0.64	9	596 592	201
30S/19E-23J 1 M 10-16-63	68	7.7	4900	619 30.89	153 11.58	665 28.91	0.15	6 0.15	0	159 2.61	2755 57.36	443 12.49	85 1.37	0.6	3.07	26	5250 4834	2175
30S/19E-23K 1 M 10-11-63	67	7.9	5000	443 22.11	169 13.90	795 34.57	0.18	7 0.18	0	146 2.39	2480 51.63	532 15.00	5.0 0.08	0.4	3.25	10	5472 4516	1802
30S/19E-27A 1 M 10-16-63	66	7.6	15500	515 25.70	598 45.18	4450 193.49	0.15	6 0.15	0	190 3.11	8840 184.05	2975 83.90	34 0.55	0.8	12.00	13	18024 17537	3747
30S/19E-27B 1 M 10-11-63	66	7.7	20000	455 22.70	815 67.03	5750 250.01	0.15	6 0.15	0	260 4.26	11670 242.97	3713 104.71	24 0.39	0.8	14.50	19	23418 22595	4490

T1100
CARRIZO PLAIN HYDRO UNIT

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				Mineral constituents in parts per million									
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlor- ide Cl	Nitrate NO ₃	Fos- phate F	Boron B	Silica SiO ₂	Iron Fe	Total Hardness as CaCO ₃
30S/19E-29K 1 M 10-11-63	65	7.4	2375	243	61	340	2	0	188	1290	78	14	2.4	187.00	30	2290	85R
				12.13	5.02	14.78	0.05	3.08	26.86	2.20	0.23	10	83	7	1	2340	
30S/19E-29M 1 M 10-11-63	66	7.8	2150	54	44	435	3	0	126	798	243	0	3.0	3.40	5	1686	316
				2.69	3.62	18.91	0.08	2.07	16.61	6.85	6.85	8	65	27			
30S/19E-29N 1 M 10-11-63	60	8.2	975	73	46	96	3	0	236	288	55	22	1.0	0.49	26	756	371
				3.64	3.78	4.17	0.08	3.87	6.00	1.55	0.35	33	51	13	3	726	
30S/19E-29O 1 M 10-11-63	63	7.8	5800	100	63	1500	8	0	328	2432	638	2.7	4.0	0.50	29	4854	509
				4.99	5.18	65.22	0.20	5.38	50.63	17.99	0.04	7	68	24	0.04	4938	
30S/19E-29Q 2 M 10-11-63	65	8.2	1950	74	62	317	8	0	217	569	250	21	0.4	0.91	57	1514	440
				3.69	5.10	13.78	0.20	3.56	11.85	7.05	0.34	16	52	31	1	1466	
30S/19E-30E 1 M 10-10-63	68	8.2	600	42	25	58	1	0	216	84	32	40	1.0	0.22	27	404	208
				2.10	2.06	2.52	0.03	3.54	1.75	0.90	0.65	52	26	13	10	416	
30S/19E-30G 1 M 10-10-63	--	8.2	1090	76	54	67	8	0	636	3	33	0	0.6	0.32	12	710	417
				3.79	4.44	2.91	0.20	10.42	0.06	0.93	0.8	91	1	8		567	
30S/19E-30G 2 M 10-10-63	66	8.1	2150	36	22	510	4	0	454	668	130	3.6	5.0	3.42	12	1726	181
				1.80	2.81	22.17	0.10	7.44	13.91	3.67	0.06	30	55	15		1617	

T1100

CARRIZO PLAIN HYDRO UNIT

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				million milliequivalents per million				Mineral constituents in parts per million			
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Borax B	Silica SiO ₂	Evaporites Exp. Salts	T.S. Excess T.S. Excess	Total hardness as CaCO ₃	
30S/19E-32C 1 M 10-11-63	66	7.8	1100	105	73	67	4	0	425	300	41	13	0.4	0.19	25	828	567		
				5.24	6.00	2.91	0.10	0.10	6.97	6.25	1.16	0.21	837						
30S/19E-32G 1 M 10-11-63	68	7.5	1140	74	80	69	3	0	372	261	45	21	0.6	0.28	24	854	514		
				3.69	6.58	3.00	0.08	6.10	5.43	1.27	0.34	761							
30S/19E-32G 2 M 10-11-63	68	7.5	820	44	49	73	4	0	226	234	34	7.6	1.0	0.23	10	626	312		
				2.20	4.03	3.17	0.10	3.70	4.87	0.96	0.12	568							
30S/19E-34N 1 M 10-16-63	67	8.1	27500	152	584	9400	1	0	353	7096	10851	0	0.2	3.12	10	28740	2783		
				7.58	48.03	408.71	0.03	5.79	147.74	306.00	28271								
30S/20E-18C 1 M 10-16-63	67	7.1	3200	228	112	525	8	0	161	1585	266	0	0.6	2.60	9	2946	1030		
				11.38	9.21	22.83	0.20	2.64	33.00	7.50	2815								
30S/20E-31C 1 M 10-16-63	66	6.8	7000	425	368	1500	3	0	27	4843	447	49	0.6	2.86	12	8062	2576		
				21.21	30.26	65.22	0.08	0.44	100.83	12.61	0.79	7664							
30S/20E-33N 1 M 10-16-63	61	7.9	3600	369	147	535	6	0	326	2042	206	5.3	0.6	2.90	31	3734	1526		
				18.41	12.09	23.26	0.15	5.34	42.51	5.81	0.09	3505							

CARRIZO PLAIN HYDRO UNIT
T1100

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos of 25°C)	Mineral constituents in parts per million				parts per million equivalents per million reactance value				Mineral constituents in parts per million					
				Calcium Mg	Sodium No	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Heavy B	Silica SiO ₂	Explosive Cap (Case)	Total hardness ppm	
9N/33W-18R 1 S 10-21-63	--	7.7	74.0	67	11	73	3	0	166	46	122	15	0.1	0.12	4.0	476	217
				3.34	0.90	3.17	0.08	2.72	0.96	3.44	0.24	37	13	47	0.24		
5- 6-64	65	7.2	79.1	64	16	67	3	0	159	52	123	17	0.2	0.09	--	482	226
				3.19	1.32	2.91	0.08	2.61	1.08	3.47	0.27	35	15	47	0.27		
9N/34W- 9E 1 S 10-15-63	--	7.3	57.0	27	16	75	3	0	49	48	140	13	0.2	0.09	4.6	408	134
				1.35	1.32	3.26	0.08	0.80	1.00	3.95	0.21	13	17	66	0.21		
5- 7-64	67	7.8	75.6	43	24	68	2	0	87	92	122	12	0.3	0.09	--	459	206
				2.15	1.97	2.96	0.05	1.43	1.92	3.44	0.19	20	28	49	0.19		
10N/33W-20J 1 S 12- 6-63	--	8.2	134.0	140	77	107	4	0	262	563	60	25	0.2	0.29	19	1242	667
				6.99	6.33	4.65	0.10	4.29	11.72	1.69	0.40	24	65	9	0.40		
10N/34W- 6N 1 S 5- 6-64	61	8.1	180.0	139	143	91	4	0	317	648	85	98	0.2	0.33	20	1522	936
				6.94	11.76	3.96	0.10	5.20	13.49	2.40	1.58	23	60	11	1.58		
10N/34W-14E 1 S 5- 6-64	65	8.1	165.0	87	73	93	3	0	262	548	81	76	0.2	0.29	--	1338	517
				4.34	6.00	4.04	0.08	4.29	11.41	2.28	1.23	22	59	12	1.23		
10N/34W-14E 5 S 5- 6-64	--	7.9	157.5	114	120	95	3	0	246	591	76	88	0.2	0.22	21	1320	779
				5.69	9.87	4.13	0.08	4.03	12.30	2.14	1.42	20	62	11	1.42		

SANTA MARIA HYDRO SUBUNIT T1120A

SANTA MARIA-CUYAMA HYDRO UNIT T1200

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million				Mineral constituents in parts per million				
				Calcium Mg	Magnesium Mg	Sodium No	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Barium B	Silica SiO ₂	Total Hardness as CaCO ₃
10N/34W-29N 1 S 12-6-63	--	8.3	800	77	45	50	2	2	237	245	28	3.6	0.2	0.14	646	377
				3.84	3.70	2.17	0.05	0.07	3.88	5.10	0.79	0.06	8	1	26	595
				39	38	22	1	1	39	52						
5-18-64	--	7.8	1750	129	142	100	4	0	300	689	72	66	0.4	0.27	1534	907
				6.44	11.68	4.35	0.10	4.92	14.34	2.03	1.06	5				
				29	52	19		22	64							
9-21-64	--	7.7	1600	154	88	100	4	0	252	663	60	0	0.4	0.17	1234	747
				7.68	7.24	4.35	0.10	4.13	13.80	1.69						
				40	37	22	1	21	70							
10N/34W-31N 1 S 5-18-64	--	7.6	900	58	62	59	2	0	258	223	57	4.1	0.2	0.15	698	400
				2.89	5.10	2.57	0.05	4.23	4.64	1.61	0.07	1				
				27	48	24		40	44							
9-21-64	--	7.6	940	98	36	61	2	0	263	226	55	4	0.1	0.12	662	393
				4.89	2.96	2.65	0.05	4.31	4.71	1.55	0.06	1				
				46	28	25		41	44							
10N/34W-34E 2 S 5-18-64	--	7.7	880	63	62	49	3	0	248	256	29	3.7	0.2	0.18	692	412
				3.14	5.10	2.13	0.08	4.06	5.33	0.82	0.06	1				
				30	49	20	1	40	52							
9-21-64	--	7.7	940	80	51	54	3	0	250	276	31	2	0.1	0.10	690	409
				3.99	4.19	2.35	0.08	4.10	5.75	0.87	0.03	8				
				38	39	22	1	38	53							
10N/35W-6A 1 S 2-6-64	62	8.1	1800	78	148	154	4	0	496	591	76	9.8	0.8	0.40	1455	804
				3.89	12.17	6.70	0.10	8.13	12.30	2.14	0.16	1				
				17	53	29		36	54							

SANTA MARIA HYDRO SUBUNIT T12A0

SANTA MARIA-CUYAMA HYDRO UNIT T1200

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million							Mineral constituents in parts per million						
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	No- trate NO ₃	Fer- ride Fe	Bor- on B	Sil- ico SiO ₂	Total Evap. Resid. as CaCl ₂	Hardness as CaCl ₂
SANTA MARIA HYDRO UNIT T1200																	
SANTA MARIA HYDRO SUBUNIT T12A0																	
10N/35W-6A 3 S 2- 6-64	62	8.2	1130	127 6.34 47	49 4.03 30	70 3.04 23	3 0.08 1	0	254 4.16 31	379 7.89 59	46 1.30 10	2.4 0.04	0.6	0.16	15	878 817	519
10N/35W-7F 1 S 5- 7-64	65	8.0	2045	247 12.33 49	103 8.47 33	101 4.39 17	4 0.10	0	288 4.72 19	782 16.28 65	135 3.81 15	3 0.05	0.6	0.21	--	1675 1517	1041
10N/35W-9N 1 S 5- 7-64	--	7.8	2262	247 12.33 45	87 7.15 26	186 8.09 29	4 0.10	0	321 5.26 19	907 18.88 68	123 3.47 13	6.5 0.10	0.5	0.33	--	1872 1719	975
10N/35W-9N 3 S 3- 5-64	64	8.0	2231	228 11.38 40	125 10.28 36	159 6.91 24	3 0.08	0	390 6.39 22	834 17.36 60	174 4.91 17	4.0 0.06	1.0	0.76	21	1820 1741	1084
10N/35W-9N 4 S 2- 5-64	64	7.7	4165	508 25.35 42	209 17.19 29	404 17.57 29	6 0.15	0	486 7.97 13	2186 45.51 76	220 6.20 10	4.4 0.07	1.1	0.80	24	3965 3802	2129
10N/35W-14D 1 S 10-15-63	64	7.8	1420	181 9.03 48	66 5.43 29	100 4.35 23	4 0.10	0	289 4.74 25	529 11.01 59	85 2.40 13	30 0.48	0.2	0.19	25	1182 1162	724
10N/36W-1H 1 S 10-15-63	--	7.4	1550	239 11.93 61	38 3.13 16	99 4.30 22	4 0.10	0	248 4.06 21	597 12.43 63	112 3.16 16	8.2 0.13	0.7	0.26	24	1300 1244	754
5- 6-64	37		8000	97 4.84 24	134 11.02 54	105 4.57 22	3 0.08	0	254 4.16 21	604 12.58 62	116 3.27 16	10 0.16	0.2	0.22	25	1400 1219	794

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million							Mineral constituents in parts per million							
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total hardness CaCO ₃		
SANTA MARIA HYDRO SUBUNIT														T12A0				
SANTA MARIA-CUYAMA HYDRO UNIT														T1200				
10N/36W-2G 1 S 10-17-63	64	8.1	1270	135 6.74 43	59 4.85 31	90 3.91 25	0.08 1	3	0	238 3.90 25	467 9.72 62	69 1.95 12	5.1 0.08 1	0.2	0.30	25	1037 971	580
2- 6-64	65	7.4	1347	142 7.09 44	60 4.93 30	94 4.09 25	0.08	3	0	258 4.23 26	465 9.68 60	69 1.95 12	12.4 0.20 1	0.6	0.22	27	1070 1000	601
3-26-64	64	8.0	750	32 1.60 20	26 2.14 27	96 4.17 52	0.08 1	3	0	73 1.20 15	236 4.91 61	69 1.95 24	0	0.1	0.11	4	570 502	187
10N/36W-2G 2 S 2- 5-64	64	8.0	1800	206 10.28 50	74 6.09 30	94 4.09 20	0.13	5	0	378 6.20 30	296 6.16 30	291 8.21 40	3.2 0.05	0.5	0.22	24	1365 1180	819
10N/36W-12K 2 S 2- 5-64	61	8.2	997	97 4.84 42	41 3.37 30	72 3.13 27	0.08 1	3	0	264 4.33 37	284 5.91 51	48 1.35 12	1.4 0.02	0.4	0.18	24	713 701	411
10N/36W-12K 3 S 2- 5-64	62	7.7	6748	612 30.54 31	347 28.54 29	900 39.13 40	0.18	7	0	471 7.72 8	3709 77.22 79	448 12.63 13	4.2 0.07	1.1	0.60	24	6838 6284	2956
10N/36W-14H 1 S 2- 5-64	72	8.0	896	86 4.29 43	33 2.71 27	68 2.96 29	0.08 1	3	0	246 4.03 40	243 5.06 50	36 1.02 10	2.6 0.04	0.2	0.12	33	636 626	350
11N/34W-40 1 S 7-17-64	65	7.9	1110	72 3.59 27	45 3.70 28	137 5.96 45	0.08 1	3	0	412 6.75 51	219 4.56 35	54 1.52 12	21 0.34 3	0.2	0.10	---	846 754	365

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				Mineral constituents in parts per million				No. rate Mg. 3	F. u. r. d. e. f.	B. i. c. a. r. b. o. n. a. t. e. S. O. 2	I. D. 3. Evap. (B. O. C. hardness Excl. Mg. & Ca. S. O. 4)				
				Calcium Co	Magne- sium Mg	Sodium No	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate S. O. 4	Chlo- ride Cl					Chlo- ride S. O. 4	Chlo- ride S. O. 4		
SANTA MARIA HYDRO SUBUNIT T12A0																			
11N/34W-5H 1 S 7-17-64	65	8.2	1120	109 5.44 42	57 4.69 36	66 2.87 22	0.03	1	0	6.93 54	423	159 3.31 26	81 2.28 18	15 0.24 2	0.4	0.05	--	748 696	507
11N/34W-6F 1 S 7-17-64	65	8.0	1290	84 4.19 29	67 5.51 38	106 4.61 32	4	4	0	343 5.62 38	228 4.75 32	228 4.75 32	151 4.26 29	0	0.2	0.12	--	856 485	466
11N/34W-29P 2 S 10-14-63	64	7.8	1040	83 4.14 33	63 5.18 42	70 3.04 24	2	0	0	207 3.39 27	293 6.10 49	66 1.86 15	67 1.08 9	0	0.2	0.13	30	844 776	466
11N/35W-18M 1 S 10-14-63	--	8.2	1220	143 7.14 47	52 4.28 28	85 3.70 24	4	0	0	209 3.43 22	517 10.76 69	48 1.35 9	0	0	0.1	0.21	26	1034 978	571
5- 6-64	--	8.0	1290	83 4.14 25	101 8.31 51	88 3.83 23	4	0	0	242 3.97 24	538 11.20 68	50 1.41 9	0	0	0.2	0.16	29	1168 1012	623
11N/35W-19C 2 S 2- 6-64	61	7.4	2139	215 10.73 39	119 9.79 36	152 6.61 24	5	0	0	499 8.18 30	767 15.97 58	113 3.19 12	5.2 0.08	0	1.0	0.40	24	1738 1647	1027
11N/35W-20K 3 S 2- 6-64	--	7.3	1165	122 6.09 47	42 3.45 27	74 3.22 25	4	0	0	300 4.92 38	221 4.60 35	124 3.50 27	3.2 0.05	0	0.7	0.12	26	832 765	477
11N/35W-21K 1 S 6-19-64	--	7.8	615	53 2.64 42	15 1.23 20	54 2.35 37	2	0	0	156 2.56 40	104 2.17 34	55 1.55 24	3 0.05 1	0	0.2	0.13	--	376 363	194
SANTA MARIA-CUYAMA HYDRO UNIT T1200																			

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent reactance value				Mineral constituents in parts per million					
				Calcium Mg	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	TDS Expressed as Computed Galsky	Total Hardness Galsky
SANTA MARIA HYDRO SUBUNIT T12A0																	
11N/35W-28B 1 S 10-14-63	62	8.1	1020	127 6.34 52	38 3.13 25	63 2.74 22	3 0.08 1	0	218 3.57 29	370 7.70 62	37 1.04 8	8.6 0.14 1	0.4	0.19	24	840 778	474
11N/35W-28F 2 S 2- 6-64	--	7.7	2663	326 16.27 45	123 10.12 28	221 9.61 27	8 0.20 1	0	527 8.64 24	1145 23.84 65	140 3.95 11	3.6 0.06	0.8	0.50	26	2372 2253	1321
11N/35W-28L 1 S 10-14-63	62	8.2	990	137 6.84 57	30 2.47 21	61 2.65 22	3 0.08 1	0	238 3.90 32	344 7.16 59	35 0.99 8	10 0.16 1	0.2	0.19	22	808 759	466
11N/35W-33F 1 S 5- 6-64	61	7.9	1961	256 12.77 52	92 7.57 31	99 4.30 17	4 0.10 1	0	495 8.11 34	628 13.07 54	101 2.85 12	10 0.16 1	0.5	0.27	--	1559 1434	1018
11N/36W-13R 1 S 10-14-63	--	7.6	1160	101 5.04 34	73 6.00 41	79 3.43 23	9 0.23 2	0	245 4.02 27	461 9.60 65	42 1.18 8	0	0.1	0.25	31	1016 917	552
5- 6-64	--	7.9	1180	62 3.09 20	102 8.39 56	81 3.52 23	3 0.08 1	0	255 4.18 28	467 9.72 64	43 1.21 8	0.8 0.01	0.2	0.20	31	840 916	574
12N/35W-36R 1 S 7-17-64	62	7.6	940	60 2.99 31	37 3.04 31	83 3.61 37	4 0.10 1	0	148 2.43 25	86 1.79 18	194 5.47 56	2 0.03	0.2	0.05	--	578 539	302

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				Mineral constituents in parts per million				Mineral constituents in parts per million					
				Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	I.D.S. Eq. B.C.C. Eq. B.C.C. Eq. B.C.C. Eq. B.C.C.	Hardness Ca + Mg Ca + Mg Ca + Mg Ca + Mg
7N/24W-13C 2 S 9-28-64	--	7.7	2000	271 13.52 49	113 5.29 34	105 4.57 17	5 0.13	0	228 3.74 14	1095 22.80 84	17 0.48 2	0	0.8	0.23	--	1792 1719	1141
9N/24W-19F 1 S 4-27-64	61	7.5	1861	243 12.13 51	97 7.98 33	84 3.65 15	4 0.10	0	187 3.06 13	949 19.76 84	20 0.56 2	5.5 0.09	1.0	0.21	--	1596 1496	1006
9-28-64	--	7.6	1800	216 10.78 45	106 8.72 37	95 4.13 17	4 0.10	0	197 3.23 14	954 19.86 84	16 0.45 2	5 0.08	0.8	0.43	--	1566 1494	976
9N/24W-33M 1 S 2-7-64	70	7.9	832	19 0.95 11	6 0.49 6	158 6.87 82	3 0.08 1	0	217 3.56 42	120 2.50 29	83 2.34 28	5.6 0.09 1	0.8	0.38	4	491 506	72
10N/25W-20H 1 S 4-27-64	62	8.0	1793	230 11.48 51	96 7.90 35	74 3.22 14	4 0.10	0	178 2.92 13	909 18.93 85	17 0.48 2	4.2 0.07	1.1	0.20	--	1543 1423	970
9-28-64	--	7.7	1610	256 12.77 54	88 7.24 31	80 3.48 15	4 0.10	0	178 2.92 13	957 19.92 85	15 0.42 2	4 0.06	0.6	0.19	--	1534 1492	1001
10N/25W-21G 1 S 4-27-64	63	7.4	2577	368 18.36 51	152 12.50 35	112 4.87 14	5 0.13	0	276 4.52 13	1373 28.59 83	30 0.85 2	36 0.58 2	1.1	0.30	--	2420 2213	1544
9-28-64	--	7.7	2500	342 17.07 47	165 13.57 37	127 5.52 15	5 0.13	0	272 4.46 12	1445 30.08 84	27 0.76 2	4.2 0.68 2	0.6	0.25	--	2480 2288	1533

SANTA MARIA-CUYAMA HYDRO UNIT T1200

CUYAMA VALLEY HYDRO SUBUNIT T12C0

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million reactance value				Mineral constituents in parts per million					
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fluo- ride F	Boro- n B	Sili- co SiO ₂	I.D.S. Exap.105°C as Computed	Tot. hardness as CaCl ₂
SANTA MARIA-CUYAMA HYDRO UNIT T1200																	
T12C0																	
CUYAMA VALLEY HYDRO SUBUNIT																	
10N/25W-22E 1 S 4-27-64	63	7.5	2224	295 14.72 50	127 10.44 35	99 4.30 15	4 0.10	0	203 3.33 11	1167 24.30 84	30 0.85 3	32 0.52 2	1.1	0.24	--	2043 1855	1259
9-28-64	--	7.7	1900	247 12.33 46	125 10.28 38	94 4.09 15	5 0.13	0	190 3.11 11	1111 23.13 85	23 0.65 2	16 0.26 1	0.2	0.21	--	1894 1715	1131
10N/25W-23E 1 S 4-27-64	66	7.8	2149	232 11.58 45	82 6.74 26	173 7.52 29	6 0.15 1	0	135 2.21 9	912 18.99 75	144 4.06 16	4.5 0.07	0.7	1.50	--	1749 1622	917
9-28-64	--	7.6	2100	226 11.28 43	78 6.41 25	190 8.26 32	6 0.15 1	0	138 2.26 9	932 19.40 74	162 4.57 17	4 0.06	0.2	1.13	--	1748 1667	885
10N/25W-24E 1 S 2-7-64	70	7.6	5211	306 15.27 26	149 12.25 21	712 30.96 53	7 0.18	0	193 3.16 5	1079 22.46 38	1171 33.02 56	34 0.55 1	2.8	6.90	19	3905 3582	1377
10N/25W-30F 2 S 4-27-64	69	7.9	1782	214 10.68 48	103 8.47 38	73 3.17 14	4 0.10	0	166 2.72 12	890 18.53 84	16 0.45 2	14 0.23 1	0.9	0.19	--	1550 1397	958
9-28-64	--	7.8	1750	214 10.68 46	112 9.21 39	80 3.48 15	4 0.10	0	182 2.98 13	920 19.15 83	21 0.59 3	17 0.27 1	0.6	0.22	--	1568 1458	995
10N/25W-32H 1 S 4-27-64	62	8.1	1779	227 11.33 51	94 7.73 35	72 3.13 14	4 0.10	0	181 2.97 13	854 17.78 81	25 0.71 3	35 0.56 3	1.0	0.17	--	1520 1401	954

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million						parts per million equivalents per percent reactance value				Mineral constituents in parts per million													
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total Evap. 180°C Hardness Evap. 105°C Calc. 3											
CUYAMA VALLEY HYDRO SUBUNIT														T12C0													
SANTA MARIA-CUYAMA HYDRO UNIT														T1200													
10N/25W-32H 1 S 9-28-64	--	7.6	1750	211 10.53 48	96 7.90 36	81 3.52 16	4 0.10	0	185 3.03 14	867 18.05 81	21 0.59 3	31 0.50 2	0.6	0.13	--	1442 1403	922										
10N/26W-4R 1 S 4-27-64	73	7.7	2055	203 10.13 40	85 6.99 28	179 7.78 31	5 0.13 1	0	117 1.92 8	1012 21.07 87	46 1.30 5	1.5 0.02	0.7	1.08	--	1752 1591	857										
9-28-64	--	7.7	1850	203 10.13 43	105 8.64 37	108 4.70 20	4 0.10	0	185 3.03 13	951 19.80 83	34 0.96 4	4 0.06	0.6	0.45	--	1610 1501	939										
10N/26W-9R 3 S 4-27-64	67	7.9	1966	265 13.22 53	94 7.73 31	93 4.04 16	4 0.10	0	162 2.66 11	1009 21.01 86	25 0.71 3	9 0.15 1	0.8	0.18	--	1753 1580	1068										
9-28-64	--	7.6	1900	256 12.77 50	101 8.31 33	100 4.35 17	4 0.10	0	184 3.02 12	1042 21.69 85	21 0.59 2	9 0.15 1	0.2	0.18	--	1796 1624	1055										
10N/26W-14C 1 S 4-27-64	70	7.5	1970	260 12.97 52	100 8.22 33	85 3.70 15	4 0.10	0	171 2.80 12	991 20.63 86	21 0.59 2	4 0.06	1.2	0.21	--	1671 1550	1060										
9-28-64	--	7.9	1850	246 12.28 49	103 6.47 34	100 4.35 17	5 0.13 1	0	156 2.56 10	1028 21.40 87	21 0.59 2	0	0.6	0.23	--	1686 1581	1038										
10N/26W-14C 4 S 4-27-64	64	8.0	2019	275 13.72 54	102 8.39 33	78 3.39 13	4 0.10	0	181 2.97 12	1035 21.55 85	26 0.73 3	9.2 0.15 1	1.1	0.18	--	1771 1619	1106										

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				million milliequivalents per million				Mineral constituents in parts per million			
				Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Iron Fe	Manganese Mn	Copper Cu	Zinc Zn
				SANTA MARIA-CUYAMA HYDRO UNIT															
				T12C0															
				CUYAMA VALLEY HYDRO SUBUNIT															
				T12C0															
10N/26W-14C 4 S 9-28-64	--	7.8	1900	279 13.92 52	108 8.88 33	84 3.65 14	4 0.10	0	172 2.82 11	1096 22.82 86	28 0.79 3	10 0.16 1	0.8	0.18	--	--	1850 1694	1141	
10N/26W-22A 1 S 2-7-64	64	7.7	5163	518 25.85 34	333 27.39 36	501 21.78 29	7 0.18	0	173 2.84 4	2957 61.56 82	362 10.21 14	22 0.35	1.0	0.20	24	--	5205 4810	2664	
10N/26W-23P 1 S 4-27-64	69	8.0	2062	278 13.87 52	106 8.72 33	93 4.04 15	6 0.15	0	156 2.56 10	1075 22.38 85	39 1.10 4	9.3 0.15 1	0.6	0.24	--	--	1877 1684	1130	
10N/27W-11C 1 S 9-28-64	--	7.6	4400	585 29.19 40	311 25.58 35	415 18.04 25	8 0.20	0	480 7.87 11	2954 61.50 85	110 3.10 4	7 0.11	0.1	0.38	--	--	5218 4626	2741	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million							Mineral constituents in parts per million						
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	I.D.S. Exposed 105°C Computed C.O.S.S.	Total Hardness 105°C C.O.S.S.
7N/32W-1B 1 S 10-15-63	64	7.9	590	59 2.94 46	18 1.48 23	44 1.91 30	2 0.05 1	0	3.51 56	8 0.17 3	80 2.26 36	19 0.31 5	0.1	0.14	34	374 369	221
	5-7-64	65	570	38 1.90 30	30 2.47 40	42 1.83 29	2 0.05 1	0	3.23 53	13 0.27 4	80 2.26 37	21 0.34 6	0.1	0.09	35	394 358	219
8N/34W-16G 1 S 5-7-64	--	8.1	770	68 3.39 40	21 1.73 20	77 3.35 39	3 0.08 1	0	3.77 44	131 2.73 32	73 2.06 24	0	0.2	0.16	39	542 525	256
	5-7-64	66	1160	47 2.35 18	62 5.10 39	128 5.57 42	4 0.10 1	0	3.80 30	132 2.75 21	214 6.03 47	14 0.23 2	0.2	0.20	33	866 748	373

SAN ANTONIO HYDRO UNIT T1300

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				Mineral constituents in parts per million						
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Bromide Br	Sulfide S ⁻²	Ions Expressed as Calculated	Total hardness CaCO ₃	
Date sampled																		
LOMPOC HYDRO SUBUNIT																		
T14A0																		
6N/34W-5H 5 S	--	7.8	1510	216 10.78 60	41 3.37 19	88 3.83 21	0.05	2	0	439 7.20 39	274 5.70 31	145 4.09 22	78 1.06 7	0.1	0.24	30	1074 1090	708
5-19-64	--	8.2	1581	146 7.29 41	79 6.50 36	94 4.09 23	0.05	2	0	422 6.92 39	213 5.68 32	152 4.29 24	46 0.74 4	0.4	0.21	--	1110 1000	690
9-30-64	--	8.2	1540	125 6.24 35	83 6.83 38	107 4.65 26	0.08	3	--	422 6.72 38	290 6.04 33	157 4.43 25	41 0.66 4	0.1	0.20	--	1116 1014	654
7N/33W-308 1 S	68	6.6	1280	64 3.19 24	30 2.47 19	170 7.39 56	0.13	5	0	59 0.97 7	32 0.67 5	392 11.05 85	21 0.34 3	0.1	0.07	44	890 787	283
5-15-64	64	6.5	1469	56 2.79 22	36 2.96 23	162 7.04 54	0.13	5	0	51 0.84 7	33 0.69 5	388 10.94 85	22 0.35 3	0.5	0.14	--	1050 728	288
9-29-64	--	7.5	1300	61 3.04 ??	34 2.80 21	175 7.61 56	0.15	6	--	67 1.10 8	34 0.71 5	401 11.31 84	22 0.35 3	0.1	0.17	--	804 766	292
7N/34W-12E 1 S	72	6.9	981	104 5.19 51	17 1.40 14	80 3.48 34	0.08	3	0	315 5.16 51	79 1.64 16	120 3.38 33	1.0 0.02	0.3	0.14	62	608 621	330
7N/34W-19 J 1 S	--	7.9	1390	196 9.78 55	44 3.62 20	100 4.35 24	0.15	6	0	369 6.05 34	323 6.72 38	169 4.77 27	3 0.05	0.1	0.29	--	1060 1023	671
SANTA YNEZ HYDRO UNIT																		
T1400																		

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in							parts per million				Mineral constituents in parts per million			
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Nitrate NO ₃	Fuc- ride F	Boron B	Sil- ica SiO ₂	Total Hardness as CaCO ₃	I.D.S. Evap. 105°C	Total Hardness as CaCO ₃
SANTA YNEZ HYDRO UNIT																		
T14A0																		
LOMPOC HYDRO SUBUNIT																		
7N/34W-19J 3 S 11-6-63	68	7.6	1460	170 8.48 49	44 3.62 21	114 4.36 29	0.15	6	0	34.9 5.72 33	331 6.89 40	168 4.74 27	5.8 0.09	0.2	0.27	36	1086 1047	605
5-18-64	67	7.9	1500	158 7.88 43	61 5.02 28	119 5.17 28	0.15	6	0	35.4 5.80 32	362 7.54 41	173 4.88 27	4.4 0.07	0.2	0.40	33	1158 1091	646
9-30-64	--	7.6	1400	134 6.69 43	46 3.78 24	113 4.91 32	0.13	5	0	32.5 5.33 34	252 5.25 33	183 5.16 33	4.1 0.07	0.1	0.27	--	1030 897	524
7N/34W-19L 2 S 11-6-63	68	7.9	2000	173 8.63 42	55 4.52 22	162 7.04 35	0.15	6	0	40.6 6.65 33	340 7.08 35	233 6.57 32	2.3 0.04	0.1	0.38	37	1267 1208	658
5-18-64	--	7.5	1876	194 9.68 46	53 4.36 21	158 6.87 33	0.18	7	0	43.7 7.16 34	321 6.68 32	245 6.91 33	2.5 0.04	0.3	0.39	--	1312 1196	703
9-30-64	--	7.8	2250	198 9.88 36	103 8.47 31	197 8.57 32	0.18	7	--	52.7 8.64 32	467 9.72 36	307 8.66 32	0	0.1	0.44	--	1692 1539	918
7N/34W-20K 5 S 9-30-64	--	7.7	1120	113 5.64 48	30 2.47 21	82 3.57 30	0.10	4	0	25.6 4.20 35	207 4.31 36	121 3.41 29	0	0.1	0.20	--	750 683	406
7N/34W-20L 1 S 5-18-64	70	8.0	1300	56 2.79 18	97 7.98 53	97 4.22 28	0.10	4	0	33.5 5.49 36	251 5.23 34	168 4.74 31	0	0.2	0.30	37	1024 875	539

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million reagent value				Mineral constituents in parts per million					
				Calcium Mg	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	No- trate NO ₃	Fre- e F	Bore- on B	Iron Fe	Total Hard- ness CaCO ₃	
				T1440				T1400									
				LOMPOC HYDRO SUBUNIT				SANTA YNEZ HYDRO UNIT									
7N/34W-20L 1 S 9-30-64	--	7.9	1220	117 5.84 38	63 5.18 34	94 4.09 27	5 0.13 1	0	334 5.47 36	247 5.14 33	169 4.77 31	0.0	0.1	0.24	--	928 860	551
7N/34W-20M 2 S 11-6-63	70	8.0	1340	102 5.09 35	40 3.29 23	138 6.00 41	7 0.18 1	0	262 4.29 30	186 3.87 27	216 6.09 43	4.3 0.07	0.2	0.45	35	914 858	419
9-29-64	--	8.1	1320	97 4.84 31	51 4.19 27	148 6.44 41	8 0.20 1	0	311 5.10 33	179 3.73 24	231 6.51 42	5 0.08 1	0.1	0.36	--	954 872	452
7N/34W-20N 2 S 2-4-64	65	7.4	3843	320 15.97 33	144 11.84 24	479 20.83 42	7 0.18	0	724 11.87 24	1108 23.07 47	480 13.54 28	6.4 0.10	0.6	0.80	29	5089 2931	1392
7N/34W-20N 3 S 2-4-64	64	7.5	2282	237 11.83 45	109 8.96 34	124 5.39 21	4 0.10	0	391 6.41 25	323 6.72 26	459 12.94 50	4.0 0.06	0.4	0.40	17	1815 1470	1040
7N/34W-22D 3 S 12-6-63	--	8.0	640	48 2.40 39	17 1.40 23	52 2.26 37	3 0.08 1	0	166 2.72 45	69 1.44 24	67 1.89 24	0	0.1	0.15	33	400 371	190
7N/34W-26H 3 S 2-3-64	64	7.0	1214	23 1.15 12	30 2.47 27	117 5.09 55	21 0.54 6	0	437 7.16 62	0	149 4.20 36	14 0.23 2	0.4	0.34	2	505 572	181
7N/34W-26O 3 S 10-14-63	65	8.0	2040	218 10.86 42	119 9.79 38	122 5.30 20	5 0.15 20	0	383 6.28 24	647 13.47 51	241 6.80 26	3.1 0.05	0.2	0.61	32	1682 1576	1034

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Date sampled	Temp. when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million										Mineral constituents in parts per million				
					Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total Dissolved Solids TDS	Total Solids TSS	
7N/34W-28G 2 S 10-15-63		66	7.4	2120	167 8.33 31	126 10.36 38	193 8.39 31	6 0.15 1	0	0	439 7.20 26	742 15.45 57	163 4.60 17	2.7 0.04	0.1	1.10	31	1762 1648	
6-15-64		--	7.9	2000	139 6.94 28	113 9.29 37	202 8.78 35	7 0.18 1	0	0	329 5.39 22	700 14.57 59	168 4.74 19	0	0.1	--	--	1618 1491	812
7N/34W-29E 6 S 2-3-64		63	7.8	3299	277 13.82 32	211 17.35 40	281 12.22 28	8 0.20	0	0	831 13.62 31	874 18.20 42	407 11.48 26	4.4 0.07	0.7	1.24	33	2756 2506	1560
7N/34W-30A 4 S 11-6-63		66	7.8	1750	180 8.98 45	79 6.50 32	103 4.48 22	5 0.13 1	0	0	465 7.62 37	379 7.89 39	174 4.91 24	1.8 0.03	0.2	0.50	28	1268 1179	775
7N/34W-30L 7 S 2-4-64		65	7.8	2198	198 9.88 35	139 11.43 40	157 6.83 24	6 0.15 1	0	0	563 9.23 33	672 13.99 50	176 4.96 18	4.4 0.07	0.5	0.84	25	1793 1656	1066
7N/34W-31A 1 S 5-18-64		61	7.4	2632	297 14.82 45	153 12.58 38	130 5.65 17	6 0.15	0	0	555 9.10 27	852 17.74 53	228 6.43 19	0.0	0.6	0.71	--	2191 1940	1371
9-29-64		--	8.0	2400	272 13.57 43	148 12.17 39	128 5.57 18	6 0.15	0	0	559 9.16 29	805 16.76 53	211 5.95 19	0.0	0.1	0.52	--	2056 1845	1288
7N/34W-31C 2 S 11-6-63		63	8.1	1525	123 6.14 33	96 7.90 43	98 4.26 23	2 0.05	0	0	488 8.00 43	350 7.29 39	121 3.41 18	0	0.1	0.28	33	1108 1063	703

T1400

SANTA YNEZ HYDRO UNIT

T14A0

LOMPOC HYDRO SUBUNIT

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million						parts per million equivalents per million reactance value				Mineral constituents in parts per million			
				Calcium M g	Magne- sium M g	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fer- rite Fe	Bor- ic B	Sil- ica SiO ₂	IC ₅ Evap- orated as CaCl ₂	IC ₅ Evap- orated as CaCl ₂
T1440																	
LOMPOC HYDRO SUBUNIT																	
7N/34W-31C 2 S 5-15-64	62	7.9	1623	162 8.08 42	88 7.24 38	86 3.74 20	2 0.05	0	551 9.03 48	310 6.45 34	125 3.53 19	0	0.5	0.23	--	1148	767
9-29-64	--	8.0	1550	165 8.23 41	97 7.98 40	88 3.83 19	2 0.05	0	573 9.39 46	349 7.27 36	126 3.55 18	0.0	0.1	0.24	--	1230	811
7N/34W-33P 1 S 5-20-64	--	7.6	1900	111 5.54 23	166 13.65 56	118 5.13 21	3 0.08	0	552 9.05 38	463 9.64 40	183 5.16 22	7.8 0.13 1	0.2	0.62	32	1560	960
7N/34W-35F 1 S 5-18-64	65	7.5	1739	182 9.08 43	87 7.15 34	105 4.57 22	4 0.10	0	462 7.57 37	432 8.99 44	140 3.95 19	0.5 0.01	0.4	0.49	--	1270	812
7N/34W-35F 2 S 9-30-64	--	8.0	1700	175 8.73 39	99 8.14 36	125 5.44 24	5 0.13 1	0	364 5.97 27	509 10.60 48	195 5.50 29	0.0	0.1	0.41	--	1356	844
7N/34W-35H 1 S 5-26-64	65	7.6	3000	160 7.98 22	85 6.99 20	465 20.22 57	11 0.28	0	591 9.69 28	283 5.89 17	688 19.40 55	2.5 0.04	0.2	1.52	30	1904	749
8-12-64	--	8.0	2700	164 8.18 74	92 7.57 22	430 18.70 54	12 0.31 1	0	569 9.33 27	327 6.81 20	649 18.30 53	15 0.24 1	0.1	1.14	--	1904	788
9-29-64	--	7.8	2700	152 7.58 22	83 6.83 20	440 19.13 56	13 0.33 1	0	559 9.16 27	289 6.02 18	635 17.91 54	17 0.27 1	0.1	1.12	--	1932	721
T1400																	
SANTA YNEZ HYDRO UNIT																	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million							Mineral constituents in parts per million				Total I.D.S. Expressed as CaCO ₃			
				Calcium M g	Magnesium M g	Sodium No	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B		Silica SiO ₂		
LOMPOC HYDRO SUBUNIT																		
T1440																		
SANTA YNEZ HYURO UNIT																		
T1400																		
7N/35W-17M 1 S 7-11-64	--	7.3	3200	156 7.78 21	29 2.38 6	620 26.96 71	29 0.74 2	0	5.41 14	39 0.81 2	1117 31.50 84	0	0	0.1	0.71	--	2002 2153	508
7N/35W-18H 2 S 7-15-64	--	7.2	16000	375 18.71 9	385 31.66 15	3650 158.70 75	110 2.81 1	0	652 10.69 5	825 17.18 8	6330 178.51 86	0	0	0.1	1.68	--	206 11997	2521
7N/35W-18J 1 S 10-15-63	--	8.4	5200	98 4.89 8	88 7.24 12	1070 46.52 78	33 0.84 1	15 0.50 1	467 7.65 13	98 2.04 3	1709 48.19 83	1.3 0.02	0	0.1	1.12	28	3114 3371	607
5-19-64	--	8.4	5470	57 2.84 5	92 7.57 14	989 43.00 79	34 0.87 2	43 1.43 3	417 6.83 13	60 1.67 3	1560 43.99 81	12 0.19	0	0.5	1.02	--	3060 3074	521
9-29-64	--	8.3	4600	70 3.49 6	78 6.41 12	1013 44.05 80	40 1.02 2	1 0.03	495 8.11 15	96 2.00 4	1592 44.89 81	4 0.06	0	0.1	0.76	--	2956 3138	495
7N/35W-18J 2 S 12-13-63	60	6.8	32680	683 34.08 9	1063 87.42 22	6000 260.88 67	246 6.29 2	0	939 15.39 4	2017 41.99 11	11540 325.43 85	6.8 0.11	0	1.8	2.50	42	24034 22064	6080
7N/35W-21L 4 S 9-30-64	--	8.0	2850	198 9.88 31	88 7.24 23	335 14.57 46	7 0.18 1	--	467 7.65 24	432 8.99 29	521 14.69 47	2 0.03	0	0.1	0.38	--	1980 1813	857
7N/35W-22J 1 S 9-25-64	--	7.8	2750	317 15.82 43	152 12.50 34	185 8.04 22	10 0.26 1	0	537 8.80 24	812 16.91 46	401 11.31 30	5 0.08	0	0.1	0.38	--	2420 2146	1417

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million							Mineral constituents in parts per million						
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Iron Fe	Manganese Mn
7N/35W-22M 1 S 11-6-63	63	8.1	1620	123 6.14 20	45 3.70 12	187 8.13 26	517 13.22 42	0	266 4.36 24	178 3.71 21	325 10.01 55	0	0.1	0.24	26	1084 1562	492
5-19-64	63	8.3	1752	128 6.39 36	47 3.87 22	164 7.13 41	6 0.15 1	0	266 4.36 25	153 3.19 18	351 9.90 57	0	0.2	0.10	--	1100 980	513
9-29-64	--	7.8	1650	144 7.19 36	47 3.87 20	195 8.48 43	7 0.18 1	0	288 4.72 24	185 3.85 20	384 10.83 56	0.0	0.1	0.43	--	1182 1104	553
7N/35W-23E 2 S 10-15-63	65	8.0	1990	121 6.64 25	90 7.40 31	237 10.30 43	8 0.20 1	0	306 5.02 21	476 9.91 41	332 9.36 38	2.2 0.04	0.1	0.65	32	1534 1449	673
5-18-64	64	7.4	2538	201 10.03 35	97 7.98 28	246 10.70 37	9 0.23 1	0	525 8.60 30	481 10.01 35	350 9.87 35	3.0 0.05	0.3	0.53	--	1767 1646	901
9-20-64	--	8.0	2100	168 8.38 30	95 7.81 28	255 11.09 40	2 0.23 1	0	380 6.23 23	500 10.41 38	369 10.41 34	4 0.06	0.2	0.50	--	1634 1588	810
7N/35W-24K 2 S 8-17-64	--	7.9	2450	247 12.33 40	75 6.17 20	275 11.96 39	12 0.31 1	0	490 8.03 26	448 9.33 30	486 13.71 44	8 0.13	0.1	0.62	--	1874 1790	826
9-20-64	--	8.0	2300	183 9.13 32	89 7.32 25	280 12.17 42	11 0.28 1	0	367 6.02 21	461 9.60 33	462 13.03 45	8 0.13	0.1	0.81	--	1846 1670	823

LOMPOC HYDRO SUBUNIT T14A0

SANTA YNEZ HYDRO UNIT

T1400

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos of 25°C)	Mineral constituents in parts per million				parts per million equivalents per million percent reactance value				Mineral constituents in parts per million									
				Calcium Mg	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fluo- ride F	Boron B	Sili- ca SiO ₂	T.D.S. Evap. 100°C Evap. 105°C Computed CaCO ₃	Total Hardness as CaCO ₃				
LOMPOC HYDRO SUBUNIT				T14A0												T1400					
7N/35W-25D 1 S 5-18-64				65	7.6	2600	331 16.52 45	134 11.02 30	210 9.13 25	0.23 0.23 1	9	0	575 9.42 25	916 19.07 52	301 8.49 23	0	0.1	0.77	32	2310 2217	1378
9-29-64				--	7.9	2350	249 12.43 39	141 11.60 36	178 7.74 24	10 0.26 1	0	0	400 6.56 20	843 17.55 54	293 8.26 25	6 0.10	0.1	0.55	--	1982 1917	1202
7N/35W-25F 7 S 2-4-64				65	7.9	2020	213 10.63 41	118 9.70 37	128 5.57 21	3 0.08	0	0	619 10.15 39	519 10.81 42	171 4.82 19	2.2 0.04	0.8	0.48	31	1617 1491	1017
7N/35W-26F 4 S 10-15-63				64	7.6	2775	303 15.12 43	162 13.32 38	150 6.52 19	6 0.15	0	0	497 8.15 24	680 14.16 41	426 12.01 35	3.6 0.06	0.2	0.23	33	2110 2008	1423
5-15-64				65	7.8	2682	241 12.03 38	158 12.99 42	141 6.13 20	6 0.15	0	0	378 6.20 20	677 14.10 45	388 10.94 35	5 0.08	0.7	0.19	--	2100 1803	1252
9-29-64				--	8.0	2500	277 13.82 42	143 11.76 36	157 6.83 21	8 0.20 1	0	0	417 6.83 21	697 14.51 45	379 10.69 33	4 0.06	0.1	0.17	--	2188 1870	1280
7N/35W-27F 1 S 12-13-63				64	7.5	1110	68 3.39 31	30 2.47 23	110 4.78 44	7 0.18 2	0	0	183 3.00 28	70 1.46 14	218 6.15 58	3.0 0.05	0.1	0.11	50	670 646	293
7N/35W-27P 1 S 12-12-63				66	7.2	910	50 2.50 29	35 2.88 33	71 3.09 36	9 0.23 3	0	0	71 1.16 14	100 2.08 24	187 5.27 62	0.5 0.01	0.1	0.07	13	532 501	269

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (IT)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million				Mineral constituents in parts per million						
				Calcium Co	Magne- sium Mg	Sodium No	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fluo- ride F	Boron B	Sili- ca SiO ₂	Total Hardness as CaCO ₃		
7N/35W-28K 2 S 12-12-63	64	7.3	1168	53 2.64 23	20 1.64 15	158 6.87 61	0.13 1	5	0	168 2.75 25	65 1.35 12	252 7.11 63	0.0	0.2	0.15	37	668 673	214
7N/35W-28R 1 S 12-11-63	62	7.5	464	15 0.75 16	12 0.99 21	66 2.87 60	0.15 3	6	0	168 2.75 58	0	71 2.00 42	1.0 0.02	0.2	0.12	21	249 275	87
7N/35W-30G 1 S 12-12-63	64	7.6	2392	10 0.50 2	16 1.32 5	494 21.48 89	32 0.82 3	0	517 8.47 36	0.02	1 14.61 62	518 14.61 62	26 0.42	0.2	1.60	45	1337 1398	91
7N/35W-31J 1 S 12-11-63	66	6.9	945	32 1.60 19	23 1.89 22	114 4.96 57	0.18 2	7	0	46 0.75 9	48 1.00 12	238 6.71 79	0.5 0.01	0.3	0.04	13	511 498	175
7N/35W-33J 1 S 12-11-63	62	6.9	725	30 1.50 22	25 2.06 30	75 3.26 47	0.08 1	3	0	84 1.38 20	40 0.83 12	154 4.34 64	15 0.24	0.3	0.06	44	438 428	178
7N/35W-33J 2 S 11-6-63	--	8.1	1080	93 4.64 41	29 2.38 21	96 4.17 37	0.10 1	4	0	173 2.84 25	104 2.17 19	226 6.37 56	0	0.2	0.16	28	724 665	351
5-19-64	66	7.9	1265	111 5.54 45	37 3.04 25	82 3.57 29	0.08 1	3	0	188 3.08 25	107 2.23 18	249 7.02 57	0.5 0.01	0.3	0.04	--	792 682	429
9-9-64	--	8.0	1150	93 4.64 39	37 3.04 25	97 4.22 35	0.10 1	4	--	182 2.98 25	108 2.25 19	240 6.77 56	0	0.1	0.15	--	848 669	384

T1400

SANTA YNEZ HYDRO UNIT

T1440

LOMPOC HYDRO SUBUNIT

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				Mineral constituents in parts per million				Total hardness as CaCO ₃					
				Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl		Nitrate NO ₃	Fluoride F	Barium B	Silica SiO ₂	I.D.S. Evap. (D.S. Computed)
SANTA YNEZ HYDRO UNIT																	
				T1400													
7N/35W-33J 3 S 11-6-63	--	7.8	1160	99 4.94 39	51 4.19 33	81 3.52 28	5 0.13 1	0	3.64 28	147 3.06 24	221 6.23 48	0	0.2	0.13	33	800	457
9-30-64	--	8.2	1160	116 5.79 43	46 3.78 28	86 3.74 28	6 0.15 1	0	2.34 3.84 28	150 3.12 23	234 6.60 49	2	0.1	0.14	--	858	479
7N/35W-33R 1 S 12-11-63	60	7.8	1190	50 2.50 21	62 5.10 42	101 4.39 36	7 0.18 1	0	2.15 3.52 29	132 2.75 23	203 5.72 48	0.5 0.01	0.2	0.10	35	733	380
7N/35W-35D 1 S 12-12-63	64	6.7	1101	47 2.35 23	42 3.45 34	93 4.04 40	7 0.18 2	0	0.94 1.54 16	4 0.08 1	270 7.61 77	37 0.60 6	0.2	0.05	14	604	290
7N/35W-36J 3 S 2-5-64	62	7.7	2380	328 16.37 57	40 3.29 12	203 8.83 31	3 0.08	0	4.92 8.06 28	562 11.70 41	317 8.94 31	6.4 0.10	0.6	0.36	19	1896	984
7N/35W-36P 1 S 11-6-63	--	8.3	1440	94 4.69 28	67 5.51 33	153 6.65 39	3 0.08 1	3	2.99 4.90 29	259 5.39 32	207 5.84 35	33 0.53 3	0.2	0.29	24	1024	510
5-19-64	--	8.1	1626	105 5.24 33	42 3.45 22	159 6.91 44	5 0.13 1	0	2.11 3.46 22	166 3.46 22	317 8.94 56	0	0.4	0.11	--	1031	435
				T1400													
LOMPOC HYDRO SUBUNIT																	

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				Mineral constituents in parts per million				Total Evaporitic CaCO ₃ Computed	Baron B	Fluoride F	Silica SiO ₂	Total Hardness CaCO ₃		
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl						Nitrate NO ₃	Fluoride F
SANTA RITA HYDRO SUBUNIT																		
T14B0																		
SANTA YNEZ HYDRO UNIT																		
T1400																		
6N/32M-18H 1 S 10-14-63	64	7.8	2550	319 15.92 44	163 13.41 37	155 6.74 19	0.08	3	0	9.29 25	20.09 55	965	248 6.99 19	12 0.19 1	1.0	0.86	25 2342	1468
6N/33W-11M 1 S 5-15-64	59	7.5	2199	219 10.93 40	139 11.43 42	112 4.87 18	0.13	5	0	4.37 7.16 27	718 14.95 56	718	167 4.71 18	2.5 0.04	0.7	0.24	-- 1718	1119
																	1578	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million										Mineral constituents in parts per million			
				Calcium Mg	Magnesium Mg	Sodium Na	Potassium K	Calcium Ca	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	TDS Evap 100°C Evap 105°C Computed CaCl ₂
SANTA YNEZ HYDRO UNIT																	
T1400																	
T1400																	
BUELLTON HYDRO SUBUNIT																	
6N/31W-17L 1 S 10-14-63	64	8.2	1220	87 4.34 27	112 9.21 56	62 2.70 17	3 0.08	0	437 7.16 43	351 7.31 44	67 1.89 11	12 0.19 1	0.2	0.35	26	1032 935	678
6- 3-64	64	7.3	1309	129 6.44 42	75 6.17 40	63 2.74 18	3 0.08 1	0	434 7.11 46	309 6.43 42	63 1.78 11	10 0.16 1	0.5	0.26	--	1013 866	631
7N/31W-31D 1 S 6- 3-64	66	7.4	507	30 1.50 30	27 2.22 45	28 1.22 25	1 0.03 1	0	198 3.25 63	10 0.21 4	49 1.38 27	20 0.32 6	0.1	0.03	--	290 262	186

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				million per million				Mineral constituents in parts per million			
				Calcium Co	Magne- sium Mg	Sodium No	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlor- ide Cl	Ni- trate NO ₃	Fluo- ride F	Felec- Co	Sul- Co	T.O.S. Evap 180°C Evap 105°C Computed	SiO ₂	Hardness as CaCO ₃	
SANTA YNEZ HYDRO SUBUNIT T1400																			
T1400																			
6N/29W-7L 2 S 5-18-64	68	8.4	557	58 2.89 47	29 2.38 38	21 0.91 15	1 0.03	12 0.40 7	288 4.72 77	4 0.08	32 0.90 15	3 0.05 1	0.2	0.05	--	300 302	264		
6N/29W-8P 1 S 5-18-64	72	8.2	650	64 3.19 43	39 3.21 43	22 0.96 13	1 0.03	0	389 6.38 87	3 0.06	30 0.85 12	4 0.06 1	0.2	0.02	--	354 354	320		
6N/29W-9J 1 S 10-21-63	--	8.1	900	66 3.29 31	51 4.19 40	68 2.96 28	3 0.08	0	386 6.33 61	78 1.62 16	79 2.23 22	7 0.12 1	0.1	0.20	30	560 572	374		
5-18-64	69	7.9	989	66 3.29 31	56 4.61 43	64 2.78 26	3 0.08	0	405 6.64 61	87 1.81 17	84 2.37 22	4 0.06 1	0.4	0.15	--	563 564	395		
6N/29W-17A 1 S 5-18-64	66	7.6	668	71 3.54 48	37 3.04 41	17 0.74 10	1 0.03	0	382 6.26 86	4 0.08	30 0.85 12	6 0.10 1	0.3	0.03	--	358 355	329		
6N/29W-17B 1 S 10-21-63	--	8.2	610	72 3.59 49	35 2.88 39	20 0.87 12	1 0.03	0	384 6.29 86	7 0.15 2	29 0.82 11	5 0.09 1	0.1	0.02	29	388 388	324		
6N/29W-18G 1 S 5-18-64	--	7.3	2284	128 6.39 24	100 8.22 31	265 11.52 43	21 0.54 2	0	525 8.60 33	709 14.76 56	86 2.43 9	35 0.56 2	0.8	1.20	--	1646 1604	731		
6N/30W-10 1 S 6-1-64	68	8.1	1088	54 2.69 21	99 8.14 63	48 2.09 16	1 0.03	0	600 9.83 77	62 1.29 10	56 1.58 12	3 0.05 1	0.3	0.24	--	635 619	542		

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million							Mineral constituents in parts per million					
				Calcium Mg	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	N rate NO ₃	Fuo- ride F	Boron B	Sul- co SO ₂	I.D.S. Evap. 105°C Compl'd
SANTA YNEZ HYDRO SUBUNIT T1400																
T1400																
6N/30W-2N 1 S 5-18-64	61	7.9	912	38 1.90 19	32 2.63 26	122 5.30 53	4 0.10 1	0	434 7.11 72	48 1.00 18	0.6 0.01	0.20	--	521 522	227	
6N/30W-7C 4 S 10-14-63	66	8.4	600	32 1.60 24	50 4.11 61	23 1.00 15	1 0.03 5	10 0.33 5	250 4.10 60	16 0.33 5	5.8 0.09 1	0.02	40	380 371	286	
6- 1-64	69	7.8	654	30 1.50 22	52 4.28 64	21 0.91 14	1 0.03	0	270 4.43 65	12 0.25 4	9.8 0.16 2	0.07	--	378 329	289	
6N/30W-12E 1 S 5-18-64	--	7.9	662	51 2.54 36	41 3.37 48	25 1.09 16	1 0.03	0	321 5.26 75	10 0.21 3	5.5 0.09 1	0.02	--	376 342	296	
6N/34W-12C 4 S 7-21-64	--	7.4	2700	349 17.42 46	147 12.09 32	185 8.04 21	10 0.26 1	0	469 7.69 21	1071 22.30 60	0	0.49	--	2330 2248	1477	
7N/29W-29R 2 S 6- 1-64	66	7.5	873	57 2.84 28	74 6.09 60	27 1.17 12	1 0.03	0	500 8.20 81	49 1.02 10	3 0.05	0.20	--	471 486	447	
7N/30W-16H 1 S 6- 3-64	68	7.7	852	47 2.35 25	70 5.76 62	26 1.13 12	1 0.03	0	454 7.44 81	18 0.37 4	6 0.10 1	0.12	--	475 439	406	
7N/30W-24Q 1 S 6- 1-64	71	7.5	1214	61 3.04 22	88 7.24 53	75 3.26 24	3 0.08 1	0	647 10.60 77	24 0.50 4	17 0.27 2	0.23	--	702 669	514	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million							Mineral constituents in parts per million						
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fluo- ride F	Boron B	Sili- co SiO ₂	I.D.S. Exap-105°C Nadness Co. 1-3	T. Tot. Nadness Co. 1-3
SANTA YNEZ HYDRO SUBUNIT T14D0																	
7N/30W-25G 1 S 6- 1-64	70	7.8	1147	22 1.10 9	75 6.17 49	119 5.17 41	3 0.08	0	542 8.88 71	30 0.62 5	105 2.96 24	0	0.1	0.15	--	632 621	364
7N/30W-25L 1 S 6- 1-64	--	7.5	678	29 1.45 21	53 4.36 63	26 1.13 16	0	0	277 4.54 65	6 0.12 2	72 2.03 29	17 0.27 4	0.4	0	--	401 340	291
7N/30W-33M 1 S 10-11-63	--	8.4	660	31 1.55 19	68 5.59 68	24 1.04 13	2 0.05	11 0.37 4	386 6.33 77	20 0.42 5	35 0.99 12	8.5 0.14 2	0.1	0.05	33	438 422	357
6- 1-64	--	7.9	739	35 1.75 21	68 5.59 67	22 0.96 11	2 0.05	0	420 6.88 82	18 0.37 4	37 1.04 12	7.3 0.12 1	0.2	0.07	--	408 396	367
7N/31W-36L 2 S 6- 1-64	69	7.5	1071	94 4.69 38	71 5.84 48	39 1.70 14	2 0.05	0	420 6.88 56	203 4.23 34	39 1.10 9	6.3 0.10 1	0.5	0.12	--	749 661	527
8N/30W-290 1 S 6- 3-64	66	7.8	785	16 0.80 9	98 8.06 88	8 0.35 4	0	0	492 8.06 89	11 0.23 3	25 0.71 8	5.5 0.09 1	0.2	0.07	--	439 406	443
SANTA YNEZ HYDRO UNIT T1400																	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million reactance value				Mineral constituents in parts per million						
				Calcium Mg	Sodium Mg	Potassium K	Bicarbonate CO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Sulfate SO ₂	Explosive Explosive	Total Total			
4N/29W-2D 1 S 1-9-64	--	8.3	1500	20 1.00 6	1 0.08	365 15.87 93	0.08 0.08	3 0.37 2	11 0.37 2	582 9.54 57	182 3.79 23	110 3.10 18	0	1.0	1.03	10	1036 990	54
4N/29W-2M 1 S 1-10-64	--	8.1	1300	74 3.69 25	61 5.02 34	135 5.87 40	2 0.05	2 0.05	0	172 2.82 19	403 8.39 58	116 3.27 23	2.1 0.03	0.8	0.54	12	944 891	436
4N/29W-10G 1 S 12-20-63	74	8.0	1500	93 4.64 24	61 5.02 26	217 9.44 49	2 0.05	0	0	534 8.75 46	283 5.89 31	162 4.57 24	0	0.8	1.54	16	1102 1099	483
4N/30W-1B 1 S 7-27-64	--	7.6	1420	221 11.03 64	22 1.81 11	99 4.30 25	3 0.08	3 0.08	0	233 3.82 23	547 11.39 67	61 1.72 10	0	1.2	0.27	--	1114 1069	643
4N/31W-1F 1 S 7-27-64	--	7.5	2500	222 11.08 33	148 12.17 36	230 10.00 30	11 0.28	11 0.28	0	548 8.98 26	558 11.62 34	479 13.51 40	0	0.4	0.68	--	1948 1918	1163
5N/29W-34B 1 S 12-20-63	68	7.5	980	119 5.94 46	51 4.19 33	61 2.65 21	2 0.05	2 0.05	0	458 7.51 58	141 2.94 23	84 2.37 18	14 0.23 2	0.1	0.26	11	738 708	507
5N/29W-34B 2 S 12-20-63	64	6.8	2000	281 14.02 54	30 2.47 9	220 9.57 37	2 0.05	2 0.05	0	15 0.25 1	1173 24.42 93	60 1.69 6	0	0.2	0.79	0	1908 1774	825
5N/30W-28R 1 S 10-23-63	64	7.9	780	112 5.59 62	22 1.81 20	38 1.65 18	1 0.03	1 0.03	0	250 4.10 44	228 4.75 51	18 0.51 5	0	0.2	0.18	20	592 562	370

T1500

SANTA BARBARA HYDRO UNIT

T15A0

ARGUELLO HYDRO SUBUNIT

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million							Mineral constituents in million equivalents per percent				Mineral constituents in parts per million				
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Selenium	I.D.S. Expt. 180°C hardness	Total hardness at 105°C		
Date sampled				Co	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	Se	Co	SO ₂	Computed	Total
ARGUELLO HYDRO SUBUNIT																			
T15A0																			
SANTA BARBARA HYDRO UNIT																			
T1500																			
5N/30W-30C 1 S 11-18-63	67	7.8	770	70 3.49 39	35 2.88 32	59 2.57 29	0.03	0	288 4.72 66	66 1.37 19	39 1.10 15	0	0.2	0.18	15	558 427			319
5N/30W-30F 1 S 10-24-63	--	8.0	1040	127 6.34 47	50 4.11 31	67 2.91 22	0.05	0	348 5.70 43	299 6.23 47	51 1.44 11	0	0.4	0.16	20	840 788			523
5N/30W-30N 2 S 10-24-63	66	7.8	1750	164 8.18 39	90 7.40 35	122 5.30 25	2	0	382 6.26 29	544 11.33 53	119 3.36 16	22 0.35 2	0.4	0.34	18	1404 1270			780
5N/30W-31N 1 S 10-24-63	--	7.8	2260	211 10.53 35	127 10.44 34	217 9.44 31	4	0	508 8.33 27	736 15.32 49	262 7.39 24	1.3 0.02	0.6	0.47	16	1944 1825			1049
7-15-64	--	7.6	2535	198 9.88 33	125 10.28 34	223 9.70 32	4	0	376 6.16 21	734 15.28 51	293 8.26 28	8.2 0.13	0.8	0.61	--	1914 1771			1009
5N/30W-31N 2 S 10-24-63	--	7.5	2230	271 13.52 45	103 8.47 28	185 8.04 27	4	0	486 7.97 26	804 16.74 55	209 5.89 19	0	0.4	0.61	18	1922 1834			1100
5N/30W-32L 1 S 10-23-63	--	8.2	1180	10 0.50 4	3 0.25 2	290 12.61 94	3	0	521 8.54 63	34 0.71 5	149 4.20 31	0	4.0	0.75	21	774 771			38
5N/31W-23G 1 S 11-12-63	64	7.9	1330	91 4.54 28	57 4.69 29	165 7.17 44	2	0	360 5.90 36	384 7.99 49	87 2.45 15	0	0.2	0.19	26	1016 989			462

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (IT)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalent percent				Mineral constituents in parts per million									
				Calcium Co	Magnesium Mg	Sodium No	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total Dissolved Solids Computed	Total Hardness Ca+Mg
SANTA BARBARA HYDRO UNIT																	
T1500																	
ARGUELLO HYDRO SUBUNIT																	
T1500																	
5N/31W-230 1 S 11-18-63	76	8.7	880	7 0.35 3	1 0.08 1	220 9.57 95	1 0.03 0	1908 63.59 88	321 5.26 7	51 1.06 1	90 2.54 4	0 0	2*2 0.2	1.64 0.10	16 32	580 2456	22 505
5N/31W-25G 1 S 10-25-63	71	7.2	910	166 8.28 72	22 1.81 16	32 1.39 12	1 0.03 0	0 0	315 5.16 45	260 5.41 48	28 0.79 7	0 0	0.2 0.2	0.10 0.12	32 31	738 696	505 715
5N/31W-25G 2 S 10-25-63	69	7.2	1180	250 12.48 78	22 1.81 11	37 1.61 10	2 0.05 0	0 0	397 6.51 40	394 8.20 51	52 1.47 9	0 0	0.2 0.2	0.12 0.07	31 31	1028 984	715 470
5N/31W-25H 1 S 10-25-63	73	7.4	880	152 7.58 69	22 1.81 16	36 1.57 14	1 0.03 0	0 0	335 5.49 50	210 4.37 40	41 1.16 11	0 0	0.2 0.1	0.07 0.08	31 30	696 658	470 371
5N/31W-26E 1 S 11-18-63	72	7.8	700	127 6.34 72	13 1.07 12	28 1.22 14	9 0.23 3	0 0	292 4.79 53	168 3.50 39	25 0.71 8	0 0	0.1 0.4	0.08 0.55	30 20	568 544	371 233
5N/31W-26G 1 S 11-12-63	69	7.5	1000	62 3.09 28	19 1.56 14	145 6.30 57	1 0.03 0	0 0	339 5.56 50	163 3.39 31	73 2.06 19	0 0	0.4 0.2	0.55 0.10	20 29	648 651	233 384
5N/31W-28Q 1 S 11-18-63	--	7.4	810	142 7.09 81	7 0.58 11	23 1.00 11	1 0.03 0	0 0	289 4.74 56	148 3.08 36	25 0.71 8	0 0	0.2 0.2	0.10 0.47	29 16	546 517	384 434
5N/31W-32A 1 S 11-18-63	--	7.2	920	126 6.29 55	29 2.38 21	63 2.74 24	2 0.05 0	0 0	301 4.93 42	230 4.79 41	71 2.00 17	0 0	0.2 0.2	0.47 0.16	16 17	728 686	434 886

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				million parts per million				Mineral constituents in parts per million			
				Calcium Mg	Magne- sium	Sodium K	Potas- sium	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fer- ride F	Bor- on B	Sil- ica SiO ₂	I.D.S. Extr. 180°C Extr. 105°C Computed	Tab. hardness as CaCO ₃		
ARGUELLO HYDRO SUBUNIT																			
T15A0																			
SANTA BARBARA HYDRO UNIT																			
T1500																			
5N/31W-35B 1 S 10-25-63	65	8.1	2500	246 12.28 45	84 6.91 25	183 7.96 29	1 0.03	0	248 4.06 15	893 18.59 69	142 4.00 15	9.3 0.15 1	0.4	0.45	16	1890 1697	960		
5N/31W-36K 1 S 10-24-63	--	7.2	1800	212 10.58 44	98 8.06 34	113 4.91 21	11 0.28 1	0	533 8.74 36	491 10.22 42	179 5.05 21	16 0.26 1	0.4	0.53	24	1488 1407	933		
5N/32W-27E 1 S 11-18-63	--	7.8	1100	50 2.50 21	23 1.89 16	175 7.61 63	3 0.08 1	0	255 4.18 35	91 1.89 16	206 5.81 49	0 0 0	1.6	0.72	28	712 704	220		
5N/32W-35F 1 S 10-25-63	88	8.2	1040	37 1.85 16	8 0.66 6	215 9.35 79	2 0.05	0	261 4.28 36	182 3.79 32	138 3.89 33	0 0	0.6	1.31	18	748 730	126		

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (T)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million reagent value				Mineral constituents in parts per million					
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Iron B	CO ₂	Silica SiO ₂	Total hardness as CaCO ₃
SOUTH COAST HYDRO SUBUNIT																	
GOLETA HYDRO SUBAREA																	
T15C0																	
SANTA BARBARA HYDRO UNIT																	
T15C1																	
4N/28W-9G 3 S 8-25-64	--	8.1	1040	103 5.14 40	44 3.62 28	96 4.17 32	0.08 0.03	3 1	0	254 4.16 32	331 6.89 53	66 1.86 14	5 0.08 1	0.1 0.14	0.14	824 773	438
SANTA BARBARA HYDRO SUBAREA																	
T15C2																	
4N/26W-20B 2 S 7-16-64	--	8.0	1360	89 4.44 31	68 5.59 39	100 4.35 30	0.03	1	0	278 4.56 32	198 4.12 29	174 4.91 35	35 0.56 4	0.2 0.14	0.27	908 802	502
4N/27W-14R 1 S 7-16-64	70	8.1	1000	94 4.69 44	29 2.38 22	84 3.65 34	0.05	2	0	287 4.70 45	170 3.54 34	80 2.26 21	4 0.06 1	0.4 0.14	0.14	628 605	354
4N/27W-18C 1 S 8-13-64	--	7.6	995	89 4.44 37	44 3.62 30	87 3.78 32	0.05	2	0	392 6.42 53	208 4.33 36	46 1.30 11	0	0.4 0.14	0.14	676 669	403
4N/27W-18D 1 S 8-17-64	--	7.6	772	65 3.24 37	41 3.37 39	46 2.00 23	0.10	4	0	206 3.38 40	219 4.56 53	21 0.59 7	0	0.7 0.39	0.39	543 498	331
4N/27W-24D 2 S 8-12-64	--	7.4	2050	148 7.39 33	106 8.72 39	145 6.30 28	0.08	3	0	263 4.31 19	169 3.52 16	510 14.38 65	0	0.2 0.29	0.29	1518 1211	806

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
CENTRAL COASTAL DRAINAGE PROVINCE (IT)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					Mineral constituents in parts per million							
				Calcium Ca	Magne- sium Mg	Sodium Na	Potass- ium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fer- ride Fe	Boron B	Sil- ica SiO ₂	Total Dissolved Solids
SOUTH COAST HYDRO SUBUNIT																
CARPINTERIA HYDRO SUBAREA																
T15C0														T1500		
T15C4																
4N/25W-30D 1 S 10-18-63	62	7.3	760	68 3.39 39	28 2.30 27	67 2.91 34	1 0.03	0	293 4.80 56	114 2.37 28	50 1.41 16	2.1 0.03	0.8	0.30 18	502 493	286
4N/25W-35B 2 S 7-16-64	--	7.9	1800	238 11.88 53	74 6.09 27	100 4.35 19	2 0.05	0	384 6.29 28	587 12.22 55	81 2.28 10	87 1.40 6	0.2	0.27 --	1422 1358	899
4N/26W-23F 3 S 7-15-64	--	8.1	800	78 3.89 44	30 2.47 28	55 2.39 27	4 0.10 1	0	200 3.28 37	225 4.68 53	30 0.85 10	0	0.4	0.39 --	548 521	318
4N/26W-24E 4 S 7-15-64	--	8.8	700	14 0.70 10	7 0.58 8	137 5.96 82	1 0.03	16 0.53 7	194 3.18 45	12 0.25 4	112 3.16 44	0	0.2	0.27 --	452 395	64

TABLE E-1
 MINERAL ANALYSES OF GROUND WATER 1963/64
 LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent				Mineral constituents in parts per million					
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	I.D.S. Eval. 180°C Evap. 105°C Computed CaCO ₃	Total hardness as CaCO ₃
VENTURA RIVER HYDRO UNIT U0200																	
LOWER VENTURA RIVER HYDRO SUBUNITU02A0																	
3N/23W-28C 1 S 11-1-63	--	8.0	3150	152 7.58 20	85 6.99 18	550 23.91 62	8 0.20 1	0	278 4.56 12	447 9.31 24	819 23.10 60	93.0 1.50 4	0.4	2.62	18	2390 2312	729
1-29-64	68	7.7	5600	124 6.19 11	68 5.59 10	1050 45.65 79	9 0.23	0	378 6.20 11	183 3.81 7	1713 48.31 83	0.9 0.01	0.2	5.00	12	3410 3351	589
3N/23W-33G 1 S 10-18-63	69	7.4	2610	239 11.93 34	23 1.89 5	485 21.09 60	8 0.20 1	0	1616 26.49 76	46 0.96 3	260 7.33 21	0	0.1	2.27	33	1802 1891	692

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Date sampled	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per percent reactance value					Mineral constituents in parts per million				
					Calcium M g	Magne- sium M g	Sodium No	Potas- sium K	Carben- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fluo- ride F	Baron B	Sili- co- SIO ₂	I.D.S. Evap. 105°C Computed	Total hardness at 105°C Col. 3	
VENTURA RIVER HYDRO UNIT U0200																			
UPPER VENTURA RIVER HYDRO SUBUNITU02B0																			
3N/23W- 5B 1 S 10- 3-63		66	7.5	900	97 4.84 42	52 4.28 37	55 2.39 21	2 0.05	0	290 4.75 40	261 5.43 46	52 1.47 13	6.7 0.11 1	0.2	0.58	17	702 456		
3N/23W- 5H 1 S 10- 3-63		--	7.8	860	81 4.04 39	46 3.78 37	56 2.43 24	2 0.05	0	229 3.75 36	267 5.56 53	37 1.04 10	8.5 0.14 1	0.4	0.64	17	678 391 628		
3N/23W- 8H 1 S 4-28-64		--	7.6	1140	149 7.44 53	43 3.54 25	69 3.00 21	2 0.05	0	348 5.70 42	286 5.95 43	64 1.80 13	14 0.23 2	0.4	0.55	21	848 549		
8-20-64		68	8.1	1160	143 7.14 52	39 3.21 23	75 3.26 24	3 0.08	0	326 5.34 40	285 5.93 44	71 2.00 15	12.0 0.19 1	0.4	0.50	--	820 518		
3N/23W- 8H 2 S 8-20-64		--	7.5	1340	163 8.13 52	46 3.78 24	87 3.78 24	3 0.08	0	367 6.02 39	332 6.91 44	85 2.40 15	17.0 0.27 2	0.4	0.50	--	1000 596		
4N/23W- 9B 1 S 1-21-64		--	7.7	940	107 5.34 48	42 3.45 31	53 2.30 21	2 0.05	0	299 4.90 44	211 4.39 39	59 1.66 15	17.0 0.27 2	0.4	0.63	14	684 440 653		
4N/23W-11D 1 S 10- 8-63		--	8.1	520	37 1.85 32	21 1.73 30	49 2.13 37	1 0.03	0	234 3.84 67	27 0.56 10	41 1.16 20	11 0.18 3	0.4	0.08	25	334 179 327		
4N/23W-14G 1 S 10- 8-63		--	7.9	1808	168 8.38 43	45 3.70 19	165 7.17 37	5 0.13	0	373 6.11 31	269 5.60 28	280 7.90 40	5.0 0.08	0.6	0.68	33	1195 604 1155		

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Date sampled	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					Mineral constituents in parts per million									
					Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	SiO ₂	I.D.S. Exap. 105°C CO ₂ Computed	Total Address as CaCO ₃	
UPPER VENTURA RIVER HYDRO SUBUNIT U02B0																			
VENTURA RIVER HYDRO UNIT U0200																			
4N/23W-14G 1 S 8-14-64		--	7.6	1826	176 8.78 44	49 4.03 20	163 7.09 35	0.13 1	5	0	414 6.79 34	260 5.41 27	274 7.73 39	1.5 0.02	0.6	0.69	--	1265 1133	641
4N/23W-16C 4 S 10- 4-63		62	7.9	820	72 3.59 37	47 3.87 40	50 2.17 22	2 0.05 1	2	0	220 3.61 36	256 5.33 53	32 0.90 9	8.0 0.13 1	0.4	0.58	16	644 592	373
1- 9-64		60	7.7	880	116 5.79 54	33 2.71 25	52 2.26 21	2 0.05	2	0	268 4.39 40	266 5.54 50	35 0.99 9	7.0 0.11 1	0.4	0.63	12	682 656	425
4N/23W-20J 2 S 10- 4-63		62	8.0	900	80 3.99 37	55 4.52 42	48 2.09 20	2 0.05	2	0	224 3.67 34	284 5.91 55	39 1.10 10	6.7 0.11 1	0.4	0.53	15	684 641	426
4N/23W-33M 1 S 10- 3-63		--	8.0	1700	88 4.39 22	118 9.70 48	135 5.87 29	3 0.08	3	0	354 5.80 28	413 8.60 42	213 6.01 29	0	0.4	0.67	23	1300 1168	705

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos of 25°C)	Mineral constituents in parts per million				parts per million equivalents per million percent reactance value				Mineral constituents in parts per million				
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Flu- oride F	Brom- ine Br	Sul- fa- te SO ₄	Total Hard- ness CaCO ₃
VENTURA RIVER HYDRO UNIT U0200																
OJAI HYDRO SUBUNIT U02C0				U02C1				U02C2								
UPPER OJAI HYDRO SUBAREA																
4N/22W-90 2 S 10-10-63	66	8.0	1495	152 7.58 46	43 3.54 21	126 5.48 33	1 0.03	0	439 7.20 42	262 5.45 32	126 3.55 21	48 0.77 5	0.8	0.48 39	1027 1014	556
4N/22W-12N 1 S 10-10-63	65	6.8	994	68 3.39 30	23 1.89 17	135 5.87 53	1 0.03	0	527 8.64 76	27 0.56 5	55 1.55 14	34 0.55 5	0.4	1.55 34	610 638	264
OJAI HYDRO SUBAREA																
4N/22W-5L 8 S 10-17-63	66	7.3	830	108 5.39 61	21 1.73 20	39 1.70 19	1 0.03	0	245 4.02 46	154 3.21 37	32 0.90 10	35 0.56 6	0.2	0.08 19	542 530	356
1-14-64	64	7.8	800	105 5.24 59	24 1.97 22	38 1.65 19	1 0.03	0	241 3.95 44	163 3.39 38	39 1.10 12	36 0.58 6	0.2	0.11 19	528 544	361
4N/22W-6K 7 S 10-16-63	69	7.8	1582	149 7.44 43	39 3.21 18	156 6.78 39	2 0.05	0	261 4.28 24	238 4.96 28	290 8.18 46	13 0.21 1	0.7	0.35 28	1025 1044	533
4N/22W-7C 1 S 10-9-63	67	7.7	729	92 4.59 55	22 1.81 22	44 1.91 23	1 0.03	0	256 4.20 50	173 3.60 43	19 0.54 6	1.5 0.02	0.7	0.05 25	490 504	320
4N/22W-9B 1 S 10-10-63	--	7.1	944	122 6.09 57	33 2.71 25	44 1.91 18	1 0.03	0	334 5.47 50	215 4.48 41	26 0.73 7	12 0.19 2	0.6	0.08 25	656 643	440

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million						Mineral constituents in parts per million							
				Calcium Co	Magne-sium Mg	Sodium Na	Potas-sium K	Carbon-ate CO ₃	Bicar-bonate HCO ₃	Sulfate SO ₄	Chlor-ide Cl	Nit-rite NO ₂	Nit-rate NO ₃	Fer-rous Fe	Bor-ic B	Sil-ica SiO ₂	Total Dissolved Solids (Computed) CaCO ₃
Date sampled																	
VENTURA RIVER HYDRO UNIT																	
U0200																	
OJAI HYDRO SUBUNIT																	
OJAI HYDRO SUBAREA																	
U02C0																	
U02C2																	
4N/23W-2B 1 S 10-10-63	--	7.8	820	96 4.79 52	32 2.63 29	38 1.65 18	4 0.10 1	0	255 4.18 46	146 3.04 34	52 1.47 16	23 0.37 4	0.1	0.08	31	550 547	371
4N/23W-12H 2 S 10-30-63	--	8.1	750	116 5.79 61	24 1.97 21	39 1.70 18	1 0.03	0	271 4.44 46	192 4.00 42	23 0.65 7	32 0.52 5	0.2	0.10	18	616 579	388
8-14-64	--	7.6	861	115 5.74 59	30 2.47 25	36 1.57 16	1 0.03	0	287 4.70 49	189 3.93 41	21 0.59 6	26 0.42 4	0.5	0.05	--	640 560	411
4N/23W-12K 2 S 10- 9-63	68	7.5	2416	291 14.52 56	75 6.17 24	115 5.00 19	2 0.05	0	276 4.52 18	243 5.06 20	535 15.09 60	42 0.68 3	0.5	0.20	30	1845 1469	1035
8-14-64	--	7.4	2606	320 15.97 58	73 6.00 22	130 5.65 20	2 0.05	0	305 5.00 18	253 5.27 19	590 16.64 61	22 0.35 1	0.5	0.05	--	2189 1540	1099
5N/22W-32J 2 S 1-16-64	68	7.6	1220	143 7.14 49	33 2.71 19	107 4.65 32	2 0.05	0	296 4.85 33	281 5.85 40	142 4.00 27	0	0.4	0.26	18	858 872	493

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Date sampled	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in					parts per million equivalents per million reactance value					Mineral constituents in parts per million				
					Calcium Mg	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Nit- rate NO ₃	Fer- ride F	Ber- co B	Sil- co SiO ₂	T.D.S. Exap. 105°C as Compu- red CaCO ₃	Total Hardness as CaCO ₃	
SANTA CLARA-CALLEGUAS HYDRO UNIT U0300																			
U03A0																			
U03A1																			
OYNA RD PLAIN HYDRO SUBUNIT																			
OXNARD HYDRO SUBAREA																			
1S/21W-8L 1 S 10-15-63	66	8.2	1230	54 2,69 20	30 2,47 18	187 8,13 60	0.20 1	8 0	0 324 5,31 40	126 2,62 20	190 5,36 40	0.0	0.4	0.61	34	778 789	258		
3-27-64	66	8.5	1200	40 2,00 15	41 3,37 25	185 8,04 59	7 0.18 1	5 0.17 1	307 5,03 37	144 3,00 22	186 5,25 39	0.0	0.1	0.55	32	788 792	269		
1S/21W-8L 2 S 10-15-63	66	7.4	30000	818 40,82 10	866 71,22 18	6500 282,62 71	28 0.72	0 0	224 3,67 1	1671 34,79 9	12517 352,98 90	0.0	0.1	1.67	25	25966 22537	5606		
3-27-64	67	7.7	25000	733 36,58 10	405 33,31 9	6590 286,53 80	80 2,05	0 0	203 3,33 1	1689 35,16 10	11560 325,99 89	0	0.1	2.16	26	26500 21185	3497		
1S/21W-10R 1 S 1-29-64	--	7.9	1140	76 3,79 32	52 4,28 36	84 3,65 31	7 0.18 2	0 0	189 3,10 25	228 4,75 39	153 4,31 35	0.0	0.4	0.31	18	786 712	404		
1N/21W-9M 1 S 7-17-64	--	8.4	880	61 3,04 31	27 2,22 22	105 4,57 46	5 0.13 1	6 0.20 2	306 5,02 51	154 3,21 33	49 1,38 14	0.0	0.2	0.39	--	570 558	263		
1N/21W-17B 1 S 3-10-64	--	7.9	1161	118 5,89 47	36 2,96 24	83 3,61 29	4 0.10 1	0 0	234 3,84 31	366 7,62 61	38 1,07 9	2.2	0.8	0.68	37	808 801	443		
1N/21W-18A 1 S 7-16-64	--	8.2	1140	116 5,79 44	35 2,88 22	101 4,39 33	4 0.10 1	0 0	293 4,80 37	312 6,50 50	62 1,75 13	1	0.6	0.64	--	802 776	434		

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million							Mineral constituents in parts per million							
				Calcium mg	Magne- sium mg	Sodium No	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fluo- ride F	Boro- B	Siri- co SiO ₂	Total Dissoc Extr IOSEC Computed	Total Hardness CaCO ₃	
SANTA CLARA-CALLEGUAS HYDRO UNIT U0300																		
OXNARD PLAIN HYDRO SUBUNIT U03A0																		
OXNARD HYDRO SUBAREA U03A1																		
1N/21W-18L 1 S 7-16-64	--	8.1	1140	94 4.69 37	52 4.28 34	80 3.48 28	0.10	4	0	267 4.38 35	334 6.95 55	45 1.27 10	1	0.4	0.73	--	830 742	449
1N/21W-18O 1 S 11-7-63	--	7.7	1162	118 5.89	35 2.88	88 3.83	--	--	--	273 4.47	333 6.93	45 1.27	--	0.7	0.64	--	820	439
5-5-64	--	8.1	1200	117 5.84	35 2.88	90 3.91	--	--	--	264 4.33	345 7.18	44 1.24	--	0.6	0.66	--	824	436
7-16-64	--	8.2	1120	116 5.79 48	31 2.55 21	86 3.74 31	4 0.10	4 1	0	256 4.20 35	313 6.52 54	46 1.30 11	0.0	0.4	0.68	--	850 723	417
1N/21W-20M 1 S 6-5-64	--	7.5	1965	121 6.04 26	56 4.61 20	285 12.39 53	6 0.15	6 1	0	342 5.61 24	666 13.87 60	123 3.47 15	5.0 0.08	0.8	1.14	43	1495 1475	533
1N/21W-20R 1 S 6-5-64	--	7.6	1218	124 6.19 42	45 3.70 25	105 4.57 31	5 0.13	5 1	0	300 4.92 34	362 7.54 53	62 1.75 12	4.0 0.06	0.6	0.64	44	920 900	495
1N/21W-28F 2 S 6-5-64	--	7.5	1314	121 6.04 39	47 3.87 25	123 5.35 35	5 0.13	5 1	0	337 5.52 36	331 6.89 45	98 2.76 18	1.5 0.02	0.5	0.50	36	965 929	496
1N/21W-28G 1 S 6-5-64	70	8.2	1475	143 7.14 40	54 4.44 25	140 6.09 34	5 0.13	5 1	0	351 5.75 33	388 8.08 47	124 3.50 20	2.5 0.04	0.6	0.50	43	1110 1073	579

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million										Mineral constituents in parts per million				
				equivalents per percent					reactance value					Fluoride F	Barium B	Sulfate SO ₄	Iron I.D.S. Evap. B.C.C. hardness as CaCO ₃ Col. U.S.C. Col. U.S.	Total hardness as CaCO ₃
Date sampled	Ca	Mg	Na	K	Cl	CO ₃	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Barium	Sulfate					
SANTA CLARA-CALLEGUAS HYDRO UNIT U0300																		
OXNARD PLAIN HYDRO SUBUNIT U03A0																		
OXNARD HYDRO SUBAREA U03A1																		
1N/21W-28N 1 S 3-13-64	--	7.7	2062	194 9.68 43	85 6.99 31	135 5.87 26	8 0.20 1	0	312 5.11 22	315 6.56 29	390 11.00 48	7.4 0.12 1	0.4	0.46	32	1480 1321	834	
1N/21W-28N 2 S 6- 5-64	--	7.8	1517	70 3.49 22	43 3.54 22	205 8.91 55	7 0.18 1	0	346 5.67 36	220 4.58 29	202 5.70 36	1.0 0.02	0.5	0.70	47	960 966	352	
1N/21W-29C 1 S 7-16-64	--	8.2	1600	116 5.79 32	47 3.87 21	195 8.48 46	5 0.13 1	0	281 4.61 25	490 10.20 56	116 3.27 18	1.0 0.02	0.2	0.75	--	1174 1109	483	
1N/21W-29G 1 S 7-17-64	--	7.4	1576	117 5.84 32	55 4.52 25	174 7.57 42	4 0.10 1	0	294 4.82 27	473 9.85 55	112 3.16 18	1.8 0.03	0.6	0.66	--	1126 1083	518	
1N/21W-30A 1 S 7-16-64	--	8.1	1460	145 7.24 41	61 5.02 28	125 5.44 31	5 0.13 1	0	303 4.97 29	503 10.47 60	64 1.80 10	12.0 0.19 1	0.4	0.75	--	1132 1065	613	
1N/21W-30C 2 S 7-16-64	--	7.7	1436	147 7.34 43	56 4.61 27	111 4.83 29	5 0.13 1	0	275 4.51 27	487 10.14 61	66 1.86 11	11.0 0.18 1	0.8	0.64	--	1090 1020	598	
1N/21W-31A 1 S 7-17-64	--	8.1	1160	121 6.04 45	38 3.13 23	95 4.13 31	4 0.10 1	0	268 4.39 33	365 7.60 57	46 1.30 10	0.0 0.0	0.2	0.66	--	866 802	459	
1N/21W-31J 1 S 11-19-63	--	7.5	1090	79 3.94 34	40 3.29 28	99 4.30 37	5 0.13 1	0	264 4.33 17	272 5.66 48	59 1.66 14	2.2 0.04	0.2	0.58	35	732 722	362	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million										Mineral constituents in parts per million				
				Calcium Mg	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Barium Ba	Sulfide S ₂	Sulfate SO ₄	Iron Fe	Copper Cu
SANTA CLARA-CALLEGUAS HYDRO UNIT U0300																		
OXNARD PLAIN HYDRO SUBUNIT U03A0																		
OXNARD HYDRO SUBAREA U03A1																		
1N/21W-31P 1 S 5-26-64	--	7.3	37000	393 19.61 3	1245 102.39 18	10000 434.80 77	230 5.88 1	0	171 2.80	4259 88.67 16	16840 474.89 84	0.0	1.86	--	33488 33053	6105		
1N/21W-32A 1 S 11-19-63	--	7.5	1430	54 2.69 16	65 5.35 32	198 8.61 51	6 0.15 1	0	300 4.92 29	319 6.64 39	188 5.30 31	0.0	0.63	38	1066 1016	402		
1N/21W-32A 2 S 10-15-63	--	6.7	855	48 2.40 24	43 3.54 35	96 4.17 41	4 0.10 1	0	229 3.75 37	242 5.04 50	45 1.27 13	0.0	0.45	8	660 599	297		
1N/21W-32C 1 S 11-19-63	--	8.0	1240	65 3.24 25	42 3.45 26	143 6.22 47	8 0.20 2	0	271 4.44 34	274 5.70 43	104 2.93 22	2.7 0.04	0.53	35	830 808	335		
1N/21W-32G 1 S 11-19-63	--	7.8	890	68 3.39 32	34 2.80 27	95 4.13 40	5 0.13 1	0	291 4.77 46	211 4.39 42	46 1.30 12	0.0	0.53	37	642 640	310		
3-12-64	--	7.8	2028	196 9.78 43	70 5.76 25	165 7.17 31	5 0.13 1	0	293 4.80 21	374 7.79 34	358 10.10 44	7.4 0.12 1	0.62	42	1450 1360	778		
3-12-64	--	7.6	1934	190 9.48 43	65 5.35 24	160 6.96 32	5 0.13 1	0	298 4.88 22	370 7.70 35	326 9.19 42	2.5 0.04	0.62	39	1410 1308	742		
1N/21W-32K 1 S 11-19-63	--	7.7	1250	136 6.79 45	45 3.70 24	106 4.61 30	6 0.15 1	0	270 4.43 29	420 8.74 56	82 2.31 15	1.8 0.03	0.65	29	1004 960	525		

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Date sampled	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per percent					Mineral constituents in parts per million				
					Calcium Mg	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	I.D.S. Expt. 180°C Hardness as CaCO ₃	Total Hardness as CaCO ₃	
1N/21W-32K 1 S 9-29-64		69	7.4	1308	77	47	185	5	0	309	275	184	0.0	0.1	0.41	--	930	386	
					3.84	3.87	8.04	0.13	5.06	5.73	5.19	32	32	36	32	0.41	0.1	0.41	--
1N/21W-32L 1 S 10-15-63		67	7.6	1160	122	36	96	4	0	265	365	56	0.0	0.2	0.67	30	870	453	
					6.09	2.96	4.17	0.10	4.34	7.60	1.58	12	12	56	12	0.2	0.2	0.67	30
1N/21W-32Q 1 S 10-15-63		70	7.8	1030	77	28	110	3	0	285	245	43	0.0	0.2	0.46	29	732	307	
					3.84	2.30	4.78	0.08	4.67	5.10	1.21	11	11	46	11	0.2	0.2	0.46	29
3-26-64		68	7.7	900	74	30	107	4	0	297	236	43	0.0	0.2	0.36	27	684	308	
					3.69	2.47	4.65	0.10	4.87	4.91	1.21	45	45	11	45	0.2	0.2	0.36	27
1N/22W-2K 4 S 8-27-64		--	7.9	1839	194	89	114	6	0	225	771	91	2.0	1.0	0.80	--	1558	851	
					9.68	7.32	4.96	0.15	3.69	16.05	2.57	12	12	72	12	1.0	1.0	0.80	--
1N/22W-3F 4 S 11-22-63		--	7.4	1472	166	54	103	--	--	296	502	57	8.0	0.7	0.78	--	1097	637	
					8.28	4.44	4.48	--	--	4.85	10.45	1.61	9	9	61	0.13	0.7	0.78	--
5- 5-64		--	8.0	1453	142	54	100	--	--	273	458	54	12.0	0.7	0.66	--	1078	577	
					7.09	4.44	4.35	--	--	4.47	9.54	1.52	10	10	61	0.19	0.7	0.66	--
1N/22W-5G 3 S 8-27-64		--	7.8	1105	110	45	82	4	0	251	361	36	1.0	0.7	0.63	--	876	460	
					5.49	3.70	3.57	0.10	4.11	7.52	1.02	8	8	59	8	0.02	0.7	0.63	--

SANTA CLARA-CALLEGUAS HYDRO UNIT U0300

U030A
U030A1

OXNARD PLAIN HYDRO SUBUNIT
OXNARD HYDRO SUBAREA

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million							Mineral constituents in parts per million							
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	No- trate NO ₃	Flu- oride F	Re- sion	SiO ₂	Total Hard- ness CaCO ₃		
1N/22W-5M 1 S 6-4-64	--	8.0	1175	125 6.24 44	49 4.03 28	90 3.91 27	0.08	3	0	266 4.36 30	412 8.58 60	51 1.44 10	0.02	1.5 0.02	0.70	31	918 895	514
1N/22W-7D 1 S 5-22-64	--	7.6	1140	77 3.84 29	68 5.59 41	91 3.96 29	0.08	3	0	251 4.11 31	385 8.02 60	43 1.21 9	0.0	0.0	0.73	23	892 815	472
1N/22W-8R 1 S 6-4-64	--	7.8	1147	122 6.09 44	45 3.70 27	89 3.87 28	5	0.13	0	259 4.25 31	396 8.24 61	38 1.07 8	0.01	0.5	0.74	33	895 857	490
1N/22W-9E 1 S 6-4-64	--	7.4	1428	157 7.83 45	62 5.10 29	98 4.26 25	5	0.13	0	283 4.64 27	516 10.74 63	54 1.52 9	10.0 0.16	1.0	0.64	37	1143 1080	647
1N/22W-9H 1 S 10-1-63	--	7.8	1743	184 9.18 45	75 6.17 30	118 5.13 25	--	--	--	257 4.21 21	646 13.45 67	85 2.40 12	6	0.7	0.81	--	1379 1242	768
1-2-64	--	7.3	1887	215 10.73 50	70 5.76 27	119 5.17 24	--	--	--	288 4.72 22	691 14.39 66	95 2.68 12	5	0.7	0.77	--	1382 1338	825
1N/22W-9M 1 S 12-26-63	--	8.2	1340	124 6.19 39	64 5.26 33	100 4.35 27	4	0.10	0	272 4.46 28	480 9.99 62	53 1.49 9	8.0 0.13	0.6	0.73	24	1100 992	573
5-22-64	--	7.6	1300	119 5.94 38	68 5.59 35	96 4.17 26	4	0.10	0	269 4.41 28	467 9.72 62	53 1.49 9	5.7 0.09	0.6	0.58	22	1054 968	577

OXNARD PLAIN HYDRO SUBUNIT U03A0
OXNARD HYDRO SUBAREA U03A1
SANTA CLARA-CALLEGUAS HYDRO UNIT U0300

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million							Mineral constituents in parts per million						
				Calcium Mg	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Barium B	Silica SiO ₂	T.D.S. Evap. 105°C Computed Cocks	Total Hardness as CaCO ₃
SANTA CLARA-CALLEGUAS HYDRO UNIT U0300																	
OXNARD PLAIN HYDRO SUBUNIT U03A0																	
OXNARD HYDRO SUBAREA U03A1																	
1N/22W-90 2 S 11-27-63	--	7.6	1435	153 7.63 47	50 4.11 25	104 4.52 28	--	--	257 4.21 26	430 8.95 55	105 2.96 18	4.0 0.06	0.8	0.71	--	1026 974	587
12-26-63	--	8.1	1440	147 7.34 44	55 4.52 27	110 4.78 29	4 0.10 1	0	257 4.21 25	459 9.56 57	108 3.05 18	2.7 0.04	0.6	0.76	24	1122 1037	593
5- 5-64	--	7.9	2013	210 10.48 49	73 6.00 28	110 4.78 22	--	--	233 3.82 18	434 9.04 42	298 8.40 39	3.0 0.05	0.7	0.68	--	1413 1244	825
1N/22W-14D 1 S 6- 4-64	--	7.8	1258	119 5.94 41	52 4.28 29	98 4.26 29	4 0.10 1	0	232 3.80 25	469 9.76 65	49 1.38 9	1.0 0.02	0.9	0.70	34	985 942	511
1N/22W-14K 1 S 11- 7-63	--	8.0	1276	127 6.34	44 3.62	95 4.13	--	--	256 4.20	422 8.79	48 1.35	--	0.8	0.79	--	937	498
5- 5-64	--	7.9	1287	130 6.49	39 3.21	97 4.22	--	--	248 4.06	419 8.72	47 1.33	--	0.7	0.78	--	920	485
1N/22W-15A 1 S 12-26-63	--	7.9	1185	105 5.24 37	56 4.61 33	96 4.17 30	4 0.10 1	0	256 4.20 29	418 8.70 61	47 1.33 9	0.9 0.01	0.6	0.75	16	902 870	493
5-25-64	--	8.0	1200	81 4.04 28	78 6.41 44	95 4.13 28	4 0.10 1	0	269 4.41 30	421 8.77 60	52 1.47 10	1.8 0.03	0.6	0.78	21	1000 887	523

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million										Mineral constituents in parts per million				
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	Total Dissolved Solids	Hardness	
Date sampled				Co	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂	Total	Hardness	
1N/22W-15B 3 S 12-26-63	--	8.1	1210	108 5.39 37	60 4.93 34	96 4.17 29	4	0	260 4.26 29	434 9.04 61	48 1.35 9	3.6 0.06	0.6	0.73	27	986 910	516	
1N/22W-15C 1 S 12-26-63	--	8.1	1280	134 6.69 43	50 4.11 27	105 4.57 30	4	0	259 4.25 27	472 9.83 63	50 1.41 9	2.3 0.04	0.8	0.68	24	1034 970	540	
5-21-64	--	7.6	1200	126 6.29 42	54 4.44 30	96 4.17 28	4	0	250 4.10 27	419 8.72 57	84 2.37 16	0.8 0.01	0.6	0.72	24	916 932	537	
1N/22W-15D 5 S 12-26-63	68	8.1	1320	136 6.79 44	50 4.11 26	105 4.57 29	4	0	262 4.29 28	464 9.66 62	52 1.47 9	4.0 0.06	0.6	0.78	24	1032 969	545	
1N/22W-15L 1 S 12-26-63	--	7.8	1850	210 10.48 49	68 5.59 26	123 5.35 25	4	0	230 3.77 17	395 8.22 38	344 9.70 45	0.0	0.6	0.73	26	1584 1284	804	
5-21-64	--	7.6	2400	304 15.17 54	82 6.74 24	143 6.22 22	5	0	216 3.54 13	411 8.56 30	573 16.16 57	0.0	0.6	0.82	23	1812 1649	1096	
1N/22W-15P 1 S 11-19-63	--	8.1	1230	116 5.79 38	60 4.93 32	100 4.35 29	4	0	242 3.97 26	405 8.43 55	99 2.79 18	0.0	0.6	0.80	28	980 932	536	
12-26-63	--	8.0	1270	119 5.94 40	56 4.61 31	97 4.22 28	4	0	226 3.70 25	400 8.33 55	106 2.99 20	0.0	0.6	0.78	26	1014 920	528	

OXNARD PLAIN HYDRO SUBUNIT U03A.0
OXNARD HYDRO SUBAREA U03A1
SANTA CLARA-CALLEGUAS HYDRO UNIT U0300

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million										Mineral constituents in parts per million				
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Barium	Silica	Iron	Total Hardness	
Date sampled				Co	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂	Fe	CaCO ₃	
SANTA CLARA-CALLEGUAS HYDRO UNIT U0300																		
OXNARD PLAIN HYDRO SUBUNIT U03A0																		
OXNARD HYDRO SUBAREA U03A1																		
1N/22W-15P 1 S 5-21-64	--	8.0	1480	105 5.24 32	81 6.66 40	105 4.57 28	4	0	240 3.93 24	393 8.18 50	150 4.23 26	0.0	0.4	0.87	26	1102 983	595	
1N/22W-15Q 2 S 12-26-63	68	8.2	1300	127 6.34 43	47 3.87 26	105 4.57 31	4 0.10 1	0	240 3.93 26	401 8.35 55	100 2.82 19	0.0	0.6	0.78	24	992 927	511	
1N/22W-16D 2 S 11- 1-63	--	7.7	1230	131 6.54 45	46 3.78 26	96 4.17 29	4 0.10 1	0	252 4.13 28	404 8.41 57	79 2.23 15	0.0	0.6	0.75	24	956 909	516	
3-10-64	--	7.9	1214	129 6.44 45	46 3.78 26	91 3.96 28	4 0.10 1	0	249 4.08 29	392 8.16 58	67 1.89 13	1.6 0.03	0.8	0.76	30	900 885	511	
1N/22W-16D 4 S 9- 2-64	68	8.0	1144	120 5.99 46	40 3.29 25	84 3.65 28	4 0.10 1	0	243 3.98 31	373 7.77 60	41 1.16 9	0.0	0.9	0.66	36	840 819	464	
1N/22W-16E 1 S 3-18-64	60	7.7	3115	341 17.02 48	143 11.76 33	145 6.30 18	7 0.18 1	0	156 2.56 7	436 9.08 26	822 23.18 66	5.0 0.08	0.8	0.72	33	2910 2010	1440	
1N/22W-16Q 1 S 3-31-64	67	7.5	1400	123 6.14 40	46 3.78 25	123 5.35 35	5 0.13 1	0	71 1.16 7	282 5.87 38	300 8.46 55	0.0	0.4	0.57	7	188 922	496	
1N/22W-17B 1 S 11- 1-63	--	7.7	980	93 4.64 40	37 3.04 26	87 3.78 33	4 0.10 1	0	184 3.02 26	362 7.54 64	43 1.21 10	0.0	0.6	0.75	29	748 747	384	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million percent reactance value				Mineral constituents in parts per million						
				Calcium	Magne- sium	Sodium	Potas- sium	Carbon- ate	Bicar- bonate	Sulfate	Chlo- ride	Ni- trate	Fluo- ride	Boron	Sili- ca	IO ₃ -	Explosive	Hardness
Date sampled				Co	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂	as CaCO ₃	Computed	
SANTA CLARA-CALLEGUAS HYDRO UNIT U0300																		
OXNARD PLAIN HYDRO SUBUNIT U03A0																		
OXNARD HYDRO SUBAREA U03A1																		
1N/22W-17C 1 S 11- 1-63	--	7.9	1040	109	2.63	32	85	4	0	215	346	37	0.0	0.6	0.70	29	696	404
				5.44	46	22	3.70	0.10		3.52	7.20	1.04					749	
							31	1		30	61	9						
1N/22W-17D 2 S 11- 1-63	--	8.0	1090	110	3.62	44	94	4	0	235	405	42	0.0	0.8	0.80	25	878	456
				5.49	41	27	4.09	0.10		3.85	8.43	1.18					841	
							31	1		29	63	9						
3-10-64	--	8.2	1144	122	3.45	42	86	4	0	266	381	40	1.6	0.9	0.70	30	876	477
				6.09	46	26	3.74	0.10		4.36	7.93	1.13	0.03				839	
							28	1		32	59	8						
1N/22W-17Q 1 S 10-14-63	64	6.6	26000	2336	693	3550	4	0	146	1550	10212	0.0	0.1	0.76	16	23550	8685	
				116.57	36	17	154.35	0.10		2.39	32.27	287.98					18434	
							47			1	10	89						
3-16-64	70	4.4	27624	2128	864	3888	43	0	0	1449	11375	2.5	0.7	1.30	9	21406	8870	
				106.19	31	20	169.05	1.10		30.17	320.78	0.04					19761	
							49			9	91	91						
1N/22W-18E 1 S 4- 7-64	66	7.8	1000	91	58	79	4	0	258	359	46	0.0	0.6	0.58	23	840	466	
				4.54	35	37	3.43	0.10		4.23	7.47	1.30					788	
							27	1		33	57	10						
1N/22W-18P 1 S 5-19-64	--	8.0	1120	84	67	91	3	0	250	399	46	0.0	0.6	0.73	26	912	485	
				4.19	30	40	3.96	0.08		4.10	8.31	1.30					840	
							29	1		30	61	9						
1N/22W-19A 1 S 5-19-64	68	8.0	1040	78	61	85	4	0	246	357	39	0.0	0.4	0.64	27	854	446	
				3.89	31	39	3.70	0.10		4.03	7.43	1.10					773	
							29	1		32	59	9						

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million						Mineral constituents in parts per million							
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fluo- ride F	Boron B	Sili- ca SiO ₂	TDS Ex- posed to Copper as CaCO ₃	Total TDS Ex- posed to Copper as CaCO ₃
SANTA CLARA-CALLEGUAS HYDRO UNIT U0300																	
OXNARD PLAIN HYDRO SUBUNIT U03A0																	
OXNARD HYDRO SUBAREA U03A1																	
1N/22W-19H 1 S 4- 1-64	66	7.2	8000	593 29.59 35	238 19.57 23	825 35.87 42	15 0.38	0	7 0.11	334 6.95 8	2738 77.21 92	0.0	0.1	0.73	1	5936 4748	2460
1N/22W-20B 1 S 11- 1-63	--	7.5	12500	583 29.09 18	292 24.01 15	2550 110.87 67	30 0.77	0	193 3.16 2	937 19.51 12	4932 139.08 86	0.0	0.2	1.30	31	9442 9451	2657
1N/22W-20E 2 S 11- 7-63	--	7.9	1243	141 7.04	28 2.30	93 4.04	--	--	246 4.03	406 8.45	43 1.21	--	0.5	0.45	--	882	467
5- 5-64	--	7.8	1236	130 6.49 49	32 2.63 20	95 4.13 31	--	--	253 4.15 31	383 7.97 60	42 1.18 9	3.0 0.05	0.3	0.50	--	881 810	456
1N/22W-20N 2 S 10-16-63	61	8.0	1090	64 3.19 24	75 6.17 47	86 3.74 28	4 0.10 1	0	231 3.79 29	367 7.64 59	55 1.55 12	2.3 0.04	0.4	0.70	24	930 792	468
3-17-64	64	8.1	1140	126 6.29 48	39 3.21 24	83 3.61 27	4 0.10 1	0	244 4.00 30	362 7.54 57	57 1.61 12	3.8 0.06	0.7	0.60	37	847 833	475
1N/22W-20R 1 S 10-16-63	62	7.0	16600	1567 78.19 32	702 57.73 24	2500 108.70 44	40 1.02	0	177 2.90 1	1160 24.15 10	7641 215.48 89	0.0	0.2	1.45	18	16206 13717	6801
3-17-64	70	7.7	26385	1612 80.44 24	915 75.25 23	3978 172.96 52	64 1.64	0	156 2.56 1	1489 31.00 9	10625 299.03 90	0.0	1.0	1.80	22	20931 18785	7791

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million										Mineral constituents in parts per million					
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Barium	Silica	Iron	Copper	Zinc	Total hardness as CaCO ₃
Date sampled				Co	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	U	SiO ₂	Fe	Cu	Zn	Total hardness as CaCO ₃
SANTA CLARA--CALLEGUAS HYDRO UNIT U0300																			
U03A0																			
U03A1																			
1N/22W-20R 1 S 7- 6-64	--	5.6	17152	1509 75.30 37	711 58.47 29	1575 68.48 34	34 0.87	0	7 0.11	956 19.90 10	6400 180.48 90	5.0 0.08	1.08	0	12500 11195	0	0	0	6694
8-19-64	--	6.5	33000	1671 83.38 18	980 80.60 17	6800 295.66 64	90 2.30	30 1.00	130 2.13	2041 42.49 9	14930 421.03 90	0.0	2.22	--	30540 26608	0	0	0	8206
9-18-64	61	7.6	30000	1460 72.85 14	1070 86.00 16	8600 373.93 70	80 2.05	0	145 2.38	3330 69.33 13	16121 454.61 86	0.0	4.40	--	30400 30737	0	0	0	8049
1N/22W-21B 1 S 3-23-64	--	7.8	2800	377 18.81 57	92 7.57 23	150 6.52 20	6 0.15	0	251 4.11 12	432 8.99 27	709 19.99 60	0.0	0.64	26	2470 1916	0.64	26	0	1320
1N/22W-21B 3 S 3-23-64	--	8.2	1000	108 5.39 41	43 3.54 27	91 3.96 30	5 0.13 1	0	246 4.03 31	390 8.12 62	37 1.04 8	0.0	0.57	29	892 825	0.57	29	0	447
1N/22W-21J 4 S 5-21-64	--	7.1	11000	1489 74.30 52	486 39.97 28	665 28.91 20	16 0.41	0	49 0.80 1	749 15.59 11	4599 129.69 89	0.0	0.69	4	9492 8033	0.69	4	0	5718
1N/22W-21L 1 S 10-25-63	--	7.7	4700	629 31.39 55	173 14.23 25	267 11.61 20	10 0.26	0	185 3.03 5	404 8.41 14	1660 46.81 80	0.0	0.81	21	3872 3256	0.81	21	0	2283
7- 6-64	--	7.8	4545	411 20.51 42	203 16.69 34	253 11.00 23	9 0.23	0	29 0.48 1	284 5.91 13	1440 40.61 86	12.0 0.19	0.66	3	2960 2630	0.66	3	0	1861

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million percent reactivity value				Mineral constituents in parts per million						
				Calcium C a	Magne- sium M g	Sodium N a	Potas- sium K	Bicarb- onate HCO ₃	Sulfate SO ₄	Chlo- ride C l	Ni- trate NO ₃	Fuc- ride F	Borax B	Silic- ca SiO ₂	Total Hardness as CaCO ₃			
UO3A0 UO3A1 SANTA CLARA-CALLEGUAS HYDRO UNIT UO300																		
OXNARD PLAIN HYDRO SUBUNIT OXNARD HYDRO SUBAREA																		
1N/22W-21L 1 S 9-17-64	66	7.0	4300	461 23,00 47	153 12,58 26	305 13,26 27	0.23	9	0	29 0.48 1	286 5,95 12	14,79 41,71 87	0.0	0.1	0.02	--	2708 2707	1780
1N/22W-21L 2 S 3-20-64	68	11.3	2400	103 5,14 27	12 0,99 5	275 11,96 64	0.64	25 0.83 3	0	0	134 2,79 19	394 11,11 75	0.0	0.2	0.48	13	1414 982	307
1N/22W-22A 1 S 12-26-63	67	7.8	1090	177 6,34 47	35 2,88 21	95 4,13 31	0.08	3 1	0	259 4,25 32	375 7,81 59	43 1,21 9	0.0	0.6	0.76	27	896 834	461
1N/22W-22C 1 S 11-19-63	--	7.5	1190	125 6,24 42	49 4,03 27	100 4,35 30	0.10	4 1	0	221 3,62 25	395 8,22 57	92 2,59 18	0.0	0.6	0.75	29	958 904	514
12-26-63	--	8.1	1450	145 7,24 45	51 4,19 26	107 4,65 29	0.10	4 1	0	239 3,92 24	397 8,27 51	145 4,09 25	0.0	0.6	0.78	27	1056 985	572
5-21-64	--	8.0	1500	176 8,78 48	58 4,77 26	110 4,78 26	0.13	5 1	0	244 4,00 22	400 8,33 45	216 6,09 33	0.0	0.6	0.70	27	1098 1113	678
1N/22W-22F 2 S 12- 7-63	--	7.5	1510	164 8,18 47	50 4,11 23	118 5,13 29	0.13	5 1	0	281 4,61 26	534 11,12 63	64 1,80 10	14.0 0.23 1	0.6	0.82	23	1068 1112	615
1N/22W-22H 1 S 10-23-63	66	8.0	1100	103 5,14 38	46 3,78 28	100 4,35 33	0.10	4 1	0	240 3,93 30	362 7,54 57	63 1,78 13	0.0	0.2	0.75	22	878 819	446

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in						parts per million equivalents per percent				mineral constituents in parts per million			
				Calcium Mg	Magnesium Na	Sodium K	Potassium CO ₃	Carbonate HCO ₃	Bicarbonate SO ₄	Sulfate Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total Dissolved Solids TDS	Total Hardness as CaCO ₃	
SANTA CLARA-CALLEGUAS HYDRO UNIT U0300																	
OXNARD PLAIN HYDRO SUBUNIT U03A0																	
OXNARD HYDRO SUBAREA U03A1																	
1N/22W-22H 1 S 10-24-63	66	7.9	1140	131 6.54 47	41 3.37 24	93 4.04 29	4 0.10 1	0	252 4.13 29	370 7.70 54	84 2.37 17	0.0	0.2	0.75	26	916 874	496
10-25-63	66	7.8	1190	130 6.49 45	44 3.62 25	95 4.13 29	4 0.10 1	0	249 4.08 29	365 7.60 54	88 2.48 18	0.0	0.4	0.73	27	956 877	506
10-28-63	66	7.8	1150	136 6.79 47	41 3.37 23	95 4.13 29	4 0.10 1	0	247 4.05 29	359 7.47 53	94 2.65 19	0.0	0.4	0.83	27	944 879	508
1N/22W-22H 2 S 11-26-63	--	8.0	1436	133 6.64 43	49 4.03 26	108 4.70 30	6 0.15 1	0	170 2.79 18	362 7.54 48	186 5.25 34	1.5 0.02	0.7	0.64	38	990 968	534
7- 6-64	66	7.7	1965	216 10.78 49	73 6.00 28	112 4.87 22	6 0.15 1	0	237 3.88 18	349 7.27 33	377 10.63 49	2.5 0.04	0.8	0.74	37	1570 1291	840
8-18-64	--	7.8	2200	230 11.48 50	68 5.59 24	130 5.65 25	4 0.10 1	0	232 3.80 17	365 7.60 34	397 11.20 50	0.0	0.2	0.85	--	1572 1309	854
9-15-64	65	7.8	2400	248 12.38 49	81 6.66 26	145 6.30 25	6 0.15 1	0	230 3.77 15	370 7.70 30	496 13.89 55	0.0	0.4	0.62	--	1874 1460	953
1N/22W-22H 3 S 11-27-63	67	7.9	1998	173 8.63 38	65 5.35 23	200 8.70 38	10 0.26 1	0	83 1.36 6	850 17.70 77	133 3.75 16	19.0 0.31 1	0.6	0.73	28	1550 1520	700

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million reductance value				Mineral constituents in parts per million						
				Calcium Ca	Magne- sium Mg	Sodium Na	Potass- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fre- e F	Boron B	Sili- ca SiO ₂	Total Inorga- nic Colloids		
SANTA CLARA-CALLEGUAS HYDRO UNIT U0300																		
OXNARD PLAIN HYDRO SUBUNIT U03A0																		
OXNARD HYDRO SUBAREA U03A1																		
1N/22W-22H 4 S 11-27-63	58	9.3	3953	368 18.36 36	108 8.88 18	523 22.74 45	25 0.64	0.27	8 1	40 0.66 1	2141 44.58 89	166 4.68 y	6.2 0.10	1.0	1.30	12	3457 3379	1363
1N/22W-22H 5 S 12-5-63	64	7.8	1351	143 7.14 46	45 3.70 24	105 4.57 29	0.13 0.13 1	0	0	271 4.44 29	386 8.04 52	107 3.02 19	1.0 0.02	0.8	0.70	36	970 963	542
7-3-64	68	7.9	1368	146 7.29 47	51 4.19 27	93 4.04 26	5 0.13 1	0	0	254 4.16 26	374 7.79 49	136 3.84 24	0.2	0.8	0.64	37	1010 968	574
9-16-64	64	7.8	1700	158 7.88 44	59 4.85 27	120 5.22 29	5 0.13 1	0	0	246 4.03 23	373 7.77 43	216 6.09 34	0.0	0.4	0.47	--	1100 1053	637
1N/22W-22J 1 S 12-26-63	--	8.0	1390	74 3.69 23	55 4.52 29	170 7.39 47	5 0.13 1	0	0	252 4.13 27	396 8.24 53	112 3.16 20	0.0	0.6	0.78	26	1014 963	411
5-21-64	--	8.0	1200	92 4.59 33	63 5.18 38	90 3.91 28	4 0.10 1	0	0	259 4.25 31	389 8.10 59	52 1.47 11	0.0	0.6	0.67	26	900 845	489
1N/22W-22J 2 S 12-26-63	--	7.8	1280	132 6.59 47	39 3.21 23	97 4.22 30	4 0.10 1	0	0	257 4.21 30	395 8.22 59	52 1.47 11	0.0	0.6	0.71	27	954 874	490
5-21-64	--	7.7	1500	103 5.14 30	91 7.48 44	101 4.39 26	4 0.10 1	0	0	251 4.11 24	375 7.81 45	188 5.30 31	0.0	0.4	0.67	24	1172 1010	632

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million										Mineral constituents in parts per million				
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	Total Dissolved Solids		
Date sampled				Ca	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂	Computed		
SANTA CLARA-CALLEGUAS HYDRO UNIT U0300																		
OXNARD PLAIN HYDRO SUBUNIT U03AU																		
OXNARD HYDRO SUBAREA U03A1																		
1N/22W-22J 3 S 10-21-63	66	7.9	1340	140 6.99 45	47 3.87 29	104 4.52 29	4	0	248 4.06 26	34.2 7.12 46	14.7 4.15 27	0.0	0.4	0.75	27	1014	543	
12-26-63	--	8.0	1680	157 7.83 46	51 4.19 24	115 5.00 29	4	0	253 4.15 24	36.7 7.64 44	19.2 5.41 31	0.0	0.6	0.75	23	1076	601	
1N/22W-22J 5 S 10-16-63	66	7.4	1130	80 3.99 28	68 5.59 40	100 4.35 31	4	0	257 4.21 30	41.0 8.54 60	5.3 1.49 10	0.0	0.6	0.77	28	1016	479	
10-17-63	66	7.9	1180	132 6.59 46	43 3.54 25	95 4.13 29	4	0	251 4.11 29	37.4 7.79 54	8.5 2.40 17	0.0	0.6	0.73	28	970	507	
10-18-63	66	7.8	1150	150 7.49 52	32 2.63 18	94 4.09 29	4	0	252 4.13 28	37.9 7.89 54	9.0 2.54 17	0.0	0.6	0.27	27	958	506	
10-21-63	66	7.9	1170	137 6.84 48	41 3.37 23	93 4.04 28	4	0	250 4.10 28	37.7 7.85 54	9.2 2.59 18	0.0	0.6	0.75	28	1010	511	
1N/22W-22K 1 S 1-21-64	--	7.8	1280	60 2.99 22	71 5.84 43	110 4.78 35	1	0	510 8.36 62	39 0.81 6	12.9 3.64 27	37.0 0.60 4	0.2	0.33	18	722	442	
1N/22W-22K 2 S 12-3-63	60	8.0	2639	285 14.22 50	98 8.06 28	137 5.96 21	7	0	228 3.74 13	35.9 7.47 27	5.99 16.89 60	3.7 0.06	0.7	0.70	38	1970	1115	
																	1640	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent reactance value				Mineral constituents in parts per million					
				Calcium Ca	Magne- sium Mg	Sodium Na	potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fus- sile F	Boron B	Sil- ico SiO ₂	I.O.S. Exp. 180°C Exp. 105°C Computed	Total hardness CaCO ₃
SANTA CLARA-CALLEGUAS HYDRO UNIT U0300																	
OXNARD PLAIN HYDRO SUBUNIT U03A0																	
OXNARD HYDRO SUBAREA U03A1																	
1N/22W-22K 2 S 5-19-64	64	8.0	1400	157 7.83 47	52 4.28 26	101 4.39 26	5 0.13	0	244 4.00 24	389 8.10 48	170 4.79 28	0.0	0.6	0.78	26	1106 1021	606
7- 3-64	68	7.9	1277	139 6.94 48	43 3.54 24	90 3.91 27	5 0.13	0	254 4.16 28	378 7.87 53	100 2.82 19	0.0	1.0	0.66	30	960 911	524
8-18-64	--	7.9	1320	106 5.29 35	63 5.18 34	105 4.57 30	4 0.10	0	262 4.29 29	372 7.75 52	102 2.88 19	0.0	0	0.58	--	918 881	524
9-15-64	65	7.9	1500	123 6.14 40	56 4.61 30	107 4.65 30	5 0.13	0	250 4.10 26	386 8.04 52	123 3.47 22	0.0	0.4	0.65	--	1000 924	538
1N/22W-22K 3 S 12- 3-63	66	7.5	6394	517 25.80 29	268 22.04 24	970 42.18 47	7 0.18	0	349 5.72 6	3541 73.72 83	310 8.74 10	11.0 0.18	1.4	3.70	41	6105 5842	2394
1N/22W-22L 1 S 11-20-63	--	7.4	5150	721 35.98 55	233 19.16 30	217 9.44 15	10 0.26	0	181 2.97 5	461 9.60 15	1879 52.99 81	0.0	0.4	0.95	25	4420 3636	2759
12-26-63	--	7.3	5400	667 33.28 52	260 21.38 33	215 9.35 15	9 0.23	0	189 3.10 5	452 9.41 15	1826 51.49 80	0.0	0.2	0.81	23	4760 3546	2735
1N/22W-22L 2 S 12-26-63	--	7.5	1760	191 9.53 50	50 4.11 22	120 5.22 28	4 0.10	0	244 4.00 21	374 7.79 41	252 7.11 38	0.0	0.4	0.78	27	1352 1139	683

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million										Mineral constituents in parts per million				
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Iron	Silica	I.D.S. Eval. 1957	Total hardness as CaCl ₂	
Date sampled				Co	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SO ₂	Computed	Total hardness as CaCl ₂	
SANTA CLARA-CALLEGUAS HYDRO UNIT U0300																		
OXNARD PLAIN HYDRO SUBUNIT U03A0																		
OXNARD HYDRO SUBAREA U03A1																		
1N/22W-22N 2 S 5-20-64	--	7.1	1200	123 6.14 45	39 3.21 23	97 4.22 31	5 0.13 1	0	226 3.70 28	371 7.72 57	67 1.89 14	8.6 0.14 1	1.0	0.79	28	982	468	
1N/22W-22N 5 S 5-19-64	--	7.6	2500	245 12.23 44	117 9.62 34	137 5.96 21	5 0.13	0	233 3.82 14	397 8.27 30	559 15.76 57	0.0	0.4	0.78	24	1934	1093	
1N/22W-22N 6 S 6- 3-64	68	7.2	9901	1356 67.66 55	488 40.13 33	323 14.04 11	16 0.41	0	198 3.25 3	658 13.70 12	3500 98.70 85	5.0 0.08	0.8	0.76	29	7510	5394	
7- 2-64	--	7.4	9900	1403 70.01 57	457 37.58 31	345 15.00 12	13 0.33	0	199 3.26 3	665 13.85 11	3755 105.89 85	62.0 1.00	0.1	0.85	--	6598	5384	
1N/22W-22N10 S 5-19-64	--	6.6	7000	986 49.20 59	278 22.86 27	263 11.44 14	10 0.26	0	118 1.93 2	509 10.60 13	2539 71.60 85	8.2 0.13	0.2	0.75	16	5692	3606	
1N/22W-22R 4 S 6- 3-64	--	7.6	1347	134 6.69 42	51 4.19 26	112 4.87 31	5 0.13 1	0	266 4.36 28	461 9.64 62	55 1.55 10	1.3 0.02	0.8	0.68	28	1031	544	
1N/22W-22R 5 S 12-26-63	66	8.1	1280	120 5.99 45	36 2.96 22	100 4.35 32	4 0.10 1	0	289 4.74 38	291 6.06 49	48 1.35 11	12.0 0.19 2	0.2	0.78	24	854	448	
1N/22W-23C 1 S 5-19-64	--	8.0	1100	89 4.44 33	59 4.85 37	89 3.87 29	4 0.10 1	0	258 4.23 32	370 7.70 58	44 1.24 9	0.0	0.4	0.86	33	888	465	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in				parts per million equivalents percent				Mineral constituents in parts per million					
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicarb- onate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Flu- oride F	Boron B	Sili- ca SiO ₂	Total Dissolved Solids TDS Computed	Total Dissolved Solids TDS Col. U.S.
1N/22W-23C 1 S 6-4-64	--	7.7	1129	125	42	86	5	0	264	373	39	1.5	1.0	0.74	37	870	485
				6.24	3.45	3.74	0.13	4.33	7.77	1.10	0.02	33	59	840			
7-2-64	--	8.1	1166	62	77	91	4	0	270	377	43	0.0	0.6	0.63	--	886	471
				3.09	6.33	3.96	0.10	4.43	7.85	1.21	0.0	33	58	788			
1N/22W-23E 2 S 12-10-63	64	8.1	1290	129	46	100	5	0	271	389	81	2.0	0.9	0.72	35	937	511
				6.44	3.78	4.35	0.13	4.44	8.10	2.28	0.03	30	55	922			
5-19-64	64	8.1	1280	48	102	103	6	0	252	352	128	0.0	0.6	0.84	35	1012	540
				2.40	8.39	4.48	0.15	4.13	7.33	3.61	0.0	27	49	899			
7-3-64	67	7.2	1346	133	52	93	5	0	222	362	138	0.2	0.8	0.64	36	975	546
				6.64	4.28	4.04	0.13	3.64	7.54	3.89	0.0	24	26	930			
8-18-64	--	7.8	1730	257	12	110	3	0	258	360	248	0.0	0.4	0.71	--	1210	691
				12.82	0.99	4.78	0.08	4.23	7.50	6.99	0.0	23	40	1118			
9-16-64	68	7.9	1550	151	54	112	5	0	249	377	180	0.0	0.4	0.67	--	1166	599
				7.53	4.44	4.87	0.13	4.04	7.85	5.08	0.0	24	46	1002			
1N/22W-23E 3 S 12-10-63	62	7.7	8333	465	391	1525	10	0	415	4935	393	16.0	0.7	6.80	29	8290	2770
				23.20	32.16	66.31	0.26	6.80	102.75	11.08	0.26	6	85	7976			

SANTA CLARA-CALLEGUAS HYDRO UNIT U0300

OXNARD PLAIN HYDRO SUBUNIT
OXNARD HYDRO SUBAREA

U0300
U03A1

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent reactance value				Mineral constituents in parts per million					
				Calcium Mg	Magne- sium Mg	Sodium No	Potas- sium K	Carbon- ate CO ₃	Bicarb- onate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fluo- ride F	Baron B	Sili- co SiO ₂	I.O.S. Exap. 105°C Computed	Total hardness as CaCO ₃
1N/22W-23J 1 S 7- 2-64	69	7.9	123U	112 5.59 41	49 4.03 29	92 4.00 29	4 0.10 1	0 0	256 4.20 30	395 8.22 59	50 1.41 10	0.0	0.6	0.72	--	902	481
1N/22W-23K 1 S 6- 4-64	--	7.7	1108	112 5.59 44	39 3.21 25	85 3.70 29	4 0.10 1	0 0	221 3.62 29	344 7.16 57	61 1.72 14	1.4 0.02	0.9	0.58	29	812	440
1N/22W-23N 2 S 11-20-63	--	7.9	102U	108 5.39 40	45 3.70 27	100 4.35 32	5 0.13 1	0 0	293 4.80 36	352 7.33 54	47 1.33 10	3.1 0.05	0.4	0.77	27	864	455
1N/22W-25J 1 S 5-20-64	68	7.9	870	31 1.55 16	42 3.54 37	100 4.35 46	4 0.10 1	0 0	263 4.31 45	197 4.10 43	43 1.21 13	0.0	0.2	0.60	38	636	255
1N/22W-26D 4 S 11-21-63	--	7.8	1240	134 6.69 43	46 3.78 24	115 5.00 32	4 0.10 1	0 0	265 4.34 28	457 9.51 62	53 1.49 10	1.3 0.02	0.6	0.70	24	1022	524
5-20-64	--	7.6	1400	144 7.19 45	45 3.70 23	115 5.00 31	3 0.08 1	0 0	283 4.64 30	449 9.35 60	58 1.64 10	4.4 0.07	0.6	0.62	22	1034	545
1N/22W-26J 2 S 5-20-64	--	7.6	110U	95 4.74 38	46 3.78 31	87 3.78 31	3 0.08 1	0 0	313 5.13 42	257 5.35 44	61 1.72 14	0.0	0.6	0.62	26	774	426
1N/22W-26M 1 S 3-19-64	68	8.0	1479	151 7.53 44	54 4.44 26	112 4.67 29	5 0.13 1	0 0	255 4.18 25	361 7.52 44	185 5.22 31	0.5 0.01	0.8	0.66	36	1190	599

SANTA CLARA-CALLEGUAS HYDRO UNIT U0300

OXNARD PLAIN HYDRO SUBUNIT
OXNARD HYDRO SUBAREA

U03A0

U03A1

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million										Mineral constituents in parts per million				
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	I.D.S. as Evap. Residue at 105°C	Total hardness as CaCO ₃	
Date sampled				Co	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂	Computed	CaCO ₃	
SANTA CLARA-CALLEGUAS HYDRO UNIT U0300																		
OXNARD PLAIN HYDRO SUBUNIT U03A0																		
OXNARD HYDRO SUBAREA U03A1																		
1N/22W-260 1 S 5-20-64	70	7.4	1100	92 4.59 34	54 4.44 33	97 4.22 31	7 0.18 1	0	257 4.21 32	375 7.81 59	42 1.18 9	3.1 0.05	0.2	0.49	29	872 826	452	
1N/22W-27A 2 S 5-20-64	69	7.7	2000	235 11.73 51	72 5.92 26	120 5.22 23	6 0.15 1	0	256 4.20 18	379 7.89 34	390 11.00 48	0.0	0.4	0.77	22	1548 1351	883	
6-17-64	--	7.3	2328	247 12.33	91 7.48	122 5.30	--	--	242 3.97	393 8.18	460 12.97	--	0.7	0.73	--	1665	991	
1N/22W-27B 2 S 11-20-63	--	6.9	5200	772 38.52 58	215 17.68 27	217 9.44 14	10 0.26	0	205 3.36 5	490 10.20 15	1872 52.79 80	0.0	0.1	0.78	25	4538 3706	2812	
5-20-64	--	7.3	7300	1022 51.00 59	288 23.69 27	270 11.74 14	12 0.31	0	211 3.46 4	557 11.60 13	2564 72.30 83	0.0	0.1	0.88	26	5844 4844	3737	
1N/22W-27B 4 S 10-23-63	66	7.9	1150	111 5.54 38	50 4.11 28	113 4.91 33	6 0.15 1	0	246 4.03 28	427 8.89 61	55 1.55 11	0.0	0.2	0.63	29	964 913	483	
3-18-64	67	7.9	1125	112 5.59 42	43 3.54 27	91 3.96 30	5 0.13 1	0	212 3.47 26	413 8.60 65	41 1.16 9	2.5 0.04	0.5	0.46	38	875 851	457	
1N/22W-27F 2 S 11-20-63	--	7.4	1010	90 4.49 35	52 4.28 33	93 4.04 31	6 0.15 1	0	263 4.31 33	359 7.47 57	45 1.27 10	0.0	0.4	0.75	26	858 801	439	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million										Mineral constituents in parts per million				
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Flo- ride F	Boro- n B	Sili- ca SiO ₂	I.D.S. Exp. 180°C Exp. 105°C Computed	Total hardness as CaCO ₃	
Date sampled				parts per million equivalents per million reaction value														
OXNARD PLAIN HYDRO SUBUNIT				SANTA CLARA-CALLEGUAS HYDRO UNIT U0300														
OXNARD HYDRO SUBAREA				U03A0														
OXNARD HYDRO SUBAREA				U03A1														
1N/22W-27J 2 S 6- 3-64	--	7.6	2076	206 10.28 44	76 6.25 27	154 6.70 29	7 0.18 1	0	267 4.38 19	397 8.27 36	366 10.32 45	1.7 0.03	0.64	37	1538 1377	827		
1N/22W-27R 1 S 10-24-63	--	7.6	1100	102 5.09 40	43 3.54 28	90 3.91 31	4 0.10 1	0	281 4.61 37	322 6.70 54	43 1.21 10	0.0 0.6	0.73	28	838 771	432		
3-19-64	66	8.0	1000	90 4.49 38	41 3.37 29	88 3.83 32	4 0.10 1	0	231 3.79 32	331 6.89 57	47 1.33 11	0.0 0.1	0.64	26	808 741	393		
1N/22W-27R 2 S 10-24-63	--	8.2	960	70 3.49 29	56 4.61 38	89 3.87 32	5 0.13 1	0	267 4.38 36	315 6.56 54	43 1.21 10	2.1 0.03	0.70	30	818 742	405		
3-19-64	68	8.0	1068	113 5.64 45	37 3.04 24	87 3.78 30	5 0.13 1	0	283 4.64 36	324 6.75 53	46 1.30 10	2.5 0.04	0.64	38	800 793	434		
1N/22W-28B 1 S 10-23-63	64	7.0	11200	1246 62.18 41	395 32.48 72	1280 55.65 37	20 0.51	0	212 3.47 2	798 16.61 11	4557 128.51 86	0.0 0.1	1.04	21	10214 8422	4737		
3-16-64	68	7.0	7424	712 35.53 44	299 24.59 30	486 21.13 26	14 0.36	0	11 0.18	364 7.58 9	2600 73.32 90	3.7 0.06	0.80	3	5389 4488	3008		
7- 6-64	--	5.4	7576	636 31.74 38	309 25.41 30	613 26.65 32	15 0.38	0	5 0.08	458 9.54 12	2580 72.76 88	5.0 0.08	0.66	3	4950 4622	2860		

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million										Mineral constituents in parts per million				
				equivalents per percent					reactance value					Fluoride F	Boron B	Silica SiO ₂	Total Hardness as CaCO ₃	
Date sampled	Ca	Mg	Na	K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	TDS Evap. 105°C as CaCO ₃					
SANTA CLARA-CALLEGUAS HYDRO UNIT U0300																		
OXNARD PLAIN HYDRO SUBUNIT U03A0																		
OXNARD HYDRO SUBAREA U03A1																		
1N/22W-28B 1 S 8-20-64	--	5.3	7800	806 40.22 47	185 15.71 18	700 30.44 35	14 0.36	0	5 0.08	444 9.24 11	2677 75.49 89	0.1	0.76	--	4790 4831	2774		
9-16-64	68	5.3	7500	669 33.38 38	221 18.18 20	850 36.96 42	18 0.46 1	0	5 0.08	847 17.63 20	2480 69.94 80	0.1	0.82	--	5087 5088	2580		
1N/22W-28C 1 S 3-31-64	67	7.7	11000	970 48.44 35	323 26.56 19	1475 64.13 46	25 0.64	0	196 3.21 2	724 15.07 11	4220 119.00 87	0.1	0.98	19	9442 7853	3751		
7- 6-64	--	6.0	10881	812 40.52 32	406 33.39 26	1225 53.26 42	21 0.54	0	10 0.16	596 12.41 10	4050 114.21 90	0.7	0.84	0	7630 7121	3698		
8-20-64	--	6.2	10800	992 49.50 40	278 22.86 18	1170 50.87 41	17 0.43	0	22 0.36	543 11.31 10	3684 103.89 90	0.1	0.90	--	8680 6696	3621		
9-17-64	64	7.2	11000	830 41.42 27	365 30.02 19	1930 83.92 54	20 0.51	0	128 2.10 1	1336 27.82 18	4571 128.50 81	0.1	10.00	--	11850 9125	3575		
1N/22W-28H 2 S 5-20-64	--	8.2	800	54 2.69 24	27 2.24 42	87 3.78 34	4 0.10	0	123 2.02 23	268 5.58 63	46 1.30 15	0.4	0.65	8	636 585	369		
1N/22W-29A 4 S 10-14-63	68	7.8	1160	124 6.19 47	30 2.47 19	97 4.22 32	7 0.18 1	0	246 4.03 30	389 8.10 61	41 1.16 9	0.2	0.42	32	874 842	433		

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million				Mineral constituents in parts per million					
				Calcium Mg	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	I.D.S. Exposed Exp. 105°C Computed	Total hardness as CaCO ₃
OXNARD PLAIN HYDRO SUBUNIT U03A0				SANTA CLARA-CALLEGUAS HYDRO UNIT U0300													
OXNARD PLAIN HYDRO SUBAREA U03A1																	
1N/22W-29A 4 S 3- -64	64	8.0	1138	114 5.69 44	36 2.96 23	96 4.17 32	10 0.26 2	0	243 3.98 30	374 7.79 60	41 1.16 9	8.0 0.13 1	0.5	0.50	30	846 829	433
1N/22W-35C 1 S 11- 7-63	--	8.0	1136	121 6.04	33 2.71	88 3.83	--	--	287 4.70	317 6.60	45 1.27	--	0.6	0.63	--	832	438
1-10-64	--	7.7	1060	120 5.99 47	38 3.13 25	79 3.43 27	4 0.10 1	0	285 4.67 37	324 6.75 53	46 1.30 10	0.0	0.4	0.78	30	810 782	456
5- 5-64	--	8.0	1147	117 5.84	30 2.47	90 3.91	--	--	285 4.67	308 6.41	45 1.27	--	0.6	0.60	--	824	416
1N/22W-35G 1 S 1-10-64	--	7.7	780	74 3.69 42	18 1.48 17	80 3.48 40	4 0.10 1	0	348 5.70 66	77 1.60 18	48 1.35 16	0.0	0.6	0.73	29	486 502	259
5-20-64	--	8.0	800	60 2.99 34	28 2.30 26	80 3.48 39	3 0.08 1	0	325 5.33 62	77 1.60 19	60 1.69 20	0.0	0.8	0.56	29	498 498	265
1N/22W-36K 1 S 11-19-63	--	7.6	1650	142 7.09 35	77 6.33 31	153 6.65 33	6 0.15 1	0	263 4.31 21	317 6.60 33	328 9.25 46	1.8 0.03	0.2	0.70	23	1308 1178	672
4- 1-64	--	7.6	3000	220 10.98 31	79 6.50 18	415 18.04 50	10 0.26 1	0	274 4.49 13	421 8.77 25	780 22.00 62	1.6 0.03	0.2	0.73	28	2482 2090	875

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent				Mineral constituents in parts per million					
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fuo- ride F	Boron B	Sil- ica SiO ₂	I.D.S. Exp. 105°C Computed	Total hardness as CaCO ₃
1N/22W-36K 1 S 4-13-64	--	--	2078	--	--	--	--	--	--	--	--	365 10.29	--	--	--	--	--
6-15-64	--	8.0	1900	156 7.78 36	77 6.33 29	168 7.30 34	0.15 0.15 1	6 0.15 1	0	199 3.26 15	313 6.52 31	406 11.45 54	3.0 0.05	0.4	0.74	--	1406 1228
1N/22W-36K 3 S 11-19-63	--	6.7	3000	309 15.42 43	85 6.99 20	300 13.04 37	0.15	6	0	224 3.67 10	279 5.81 16	918 25.89 73	0.0	0.2	0.80	18	2140 1121
1N/22W-36L 1 S 11-19-63	--	7.2	1625	144 7.19 37	66 5.43 28	150 6.52 34	0.15	6	0	331 5.43 28	230 4.79 25	326 9.19 47	0.0	0.4	0.65	31	2026 1210 633
6-15-64	--	7.0	8600	729 36.38 35	252 20.72 20	1100 47.83 45	0.51	20	0	311 5.10 5	558 11.62 11	3209 90.49 84	1.0 0.02	0.1	0.84	--	7066 6023 2857
1N/22W-36N 1 S 11- 1-63	--	8.1	850	50 2.50 28	23 1.89 21	100 4.35 49	0.10	4	0	337 5.52 64	62 1.29 15	62 1.75 20	0.0	0.6	0.65	36	490 504 270
2N/21W-29P 3 S 8-27-64	67	8.0	1272	109 5.44 38	46 3.78 27	113 4.91 35	0.10	4	0	261 4.28 31	349 7.27 53	81 2.28 16	0.0	0.3	0.48	--	926 831 461
2N/22W-12E 1 S 8-17-64	--	7.6	1898	221 11.03 47	82 6.74 29	132 5.74 24	0.13	5	0	356 5.83 25	735 15.30 65	85 2.40 10	1.3 0.02	0.8	0.65	--	1585 1438 880

SANTA CLARA-CALLEGUAS HYDRO UNIT U0300

OXNARD PLAIN HYDRO SUBUNIT U03A0

OXNARD HYDRO SUBAREA U03A1

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million							Mineral constituents in parts per million					
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Fluoride	Hardness	Total hardness		
Date sampled				Co	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	F	Eq. CaCO ₃	Eq. CaCO ₃	Eq. CaCO ₃	
SANTA CLARA-CALLEGUAS HYDRO UNIT U0300																
OXNARD PLAIN HYDRO SUBUNIT U03A0																
OXNARD HYDRO SUBAREA U03A1																
2N/22W-12G 1 S 11-1-63	--	7.7	2123	220 10.98 43	82 6.74 26	174 7.57 30	7 0.18 1	0	306 5.02 20	823 17.13 68	111 3.13 12	1.0	0.90	33	1700 1605	887
2N/22W-14P 2 S 12-11-63	--	7.5	1707	180 8.98 45	68 5.59 28	125 5.44 27	--	--	326 5.34 27	579 12.05 61	71 2.00 10	0.6	0.72	--	1260 1212	729
3-18-64	--	7.9	1728	177 8.83 46	60 4.93 25	129 5.61 29	--	--	337 5.52 28	554 11.53 59	68 1.92 10	0.6	0.76	--	1259 1187	689
6-11-64	--	8.0	1678	164 8.18 44	62 5.10 27	122 5.30 29	--	--	330 5.41 29	531 11.06 59	67 1.89 10	0.7	0.82	--	1270 1138	665
9-23-64	--	8.0	1703	166 8.28 44	57 4.69 25	132 5.74 31	--	--	348 5.70 31	518 10.78 58	64 1.80 10	0.6	0.75	--	1244 1132	649
2N/22W-15Q 1 S 8-14-64	--	7.6	1698	170 8.48 42	67 5.51 27	143 6.22 31	5 0.13 1	0	322 5.28 26	605 12.60 62	69 1.95 10	0.8	0.65	--	1380 1246	700
2N/22W-15Q 3 S 11-5-63	68	7.8	1758	164 8.18 40	67 5.51 27	147 6.39 32	6 0.15 1	0	271 4.44 22	622 12.95 64	74 2.09 10	0.9	0.64	33	1332 1298	685
2N/22W-16K 1 S 11-7-63	--	7.9	1382	122 6.09 40	44 3.62 24	125 5.44 36	--	--	260 4.26 28	453 9.43 62	52 1.47 10	0.8	0.54	--	997 931	486

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent reactance value				Mineral constituents in parts per million				
				Calcium M g	Magne-sium M g	Sodium No	Potas-sium K	Carbon-ate CO ₃	Bicar-bonate HCO ₃	Sulfate SO ₄	Chlo-ride Cl	Ni-trate NO ₃	Fuo-ride F	Boro-n B	Sili-ca SiO ₂	Total hardness as CaCO ₃
2N/22W-16K 1 S 5- 5-64	--	8.0	1387	117	40	132	--	--	258	444	53	6.0	0.8	0.59	--	457
				5.84 39	3.29 22	5.74 39			4.23 28	9.24 61	1.49 10	0.10 1	958 920			
2N/22W-17Q 1 S 11-15-63	--	7.7	1942	188	77	188	6	0	293	716	113	65.0	0.9	0.60	38	786
				9.38 39	6.33 26	8.17 34	0.15 1		4.80 20	14.91 62	3.19 13	1.05 4	1537			
2N/22W-20Q 1 S 11-13-63	--	7.3	1658	167	60	132	--	--	257	563	95	14.0	0.6	0.70	--	664
				8.33 44	4.93 26	5.74 30			4.21 22	11.72 62	2.68 14	0.23 1	1233 1159			
5- 7-64	--	7.6	1518	149	48	126	--	--	249	509	73	13.0	0.7	0.63	--	570
				7.44 44	3.95 23	5.48 32			4.08 24	10.60 63	2.06 12	0.21 1	1042			
2N/22W-21D 3 S 10-24-63	66	7.8	1795	167	72	160	5	0	227	687	97	38	0.7	0.70	35	713
				8.33 39	5.92 28	6.96 33	0.13 1		3.72 17	14.30 67	2.74 13	0.61 3	1390 1374			
2N/22W-23B 1 S 12-11-63	--	7.3	1918	199	63	150	--	--	270	680	92	26.0	0.8	0.91	--	756
				9.93 46	5.18 24	6.52 24			4.43 21	14.16 66	2.59 12	0.42 2	1422 1344			
3-18-64	--	8.1	1716	171	64	124	--	--	286	559	72	47.0	0.7	0.86	--	690
				8.53 44	5.26 27	5.39 28			4.69 25	11.64 61	2.03 11	0.76 4	1210 1179			
6-11-64	--	7.7	1683	161	62	122	--	--	281	547	71	36.0	0.8	0.75	--	657
				8.03 44	5.10 28	5.30 29			4.61 25	11.39 61	2.00 11	0.58 3	1282 1139			

SANTA CLARA-CALLEGUAS HYDRO UNIT U0300

U03A0

OXNARD PLAIN HYDRO SUBUNIT

U03A1

OXNARD HYDRO SUBAREA

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million percent reactance value				Mineral constituents in parts per million				
				Calcium Mg	Magne- sium Mg	Sodium No	Potass- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SU ₄	Chlo- ride Cl	Ni- trate NO ₃	F re- ide F	Boron B	Silic- co SiO ₂	LD ₅ Evap-100°C Computed
2N/22W-23B 1 S 9-23-64	--	7.8	1662	165	57	122	--	--	284	538	67	31.0	0.7	0.72	--	647
				8.23 45	4.69 76	5.30 29	4.65 25	11.20 61	1.89 10	0.50 3	1239 1121					
2N/22W-23B 2 S 12-11-63	--	7.4	1707	178	61	123	--	--	290	569	72	27.0	0.7	0.78	--	696
				8.88 46	5.02 26	5.35 28	4.75 25	11.85 62	2.03 11	0.44 2	1267 1174					
3-18-64	--	8.1	1690	167	65	124	--	--	296	564	71	38.0	0.7	0.85	--	685
				8.33 44	5.35 28	5.39 28	4.85 25	11.74 61	2.00 10	0.61 3	1260 1176					
6-10-64	--	7.8	1690	161	65	128	--	--	293	554	69	33.0	0.7	0.81	--	670
				8.03 42	5.35 28	5.57 29	4.80 26	11.53 61	1.95 10	0.53 3	1282 1156					
9-23-64	--	7.9	1665	161	58	124	--	--	305	518	65	33.0	0.7	0.78	--	641
				8.03 44	4.77 26	5.39 30	5.00 28	10.78 59	1.83 10	0.53 3	1248 1110					
2N/22W-23C 2 S 12-11-63	--	7.3	1525	157	59	103	--	--	253	540	64	9.0	0.8	0.77	--	635
				7.83 46	4.85 28	4.48 26	4.15 24	11.24 65	1.80 10	0.15 1	1134 1058					
3-18-64	--	7.9	1523	155	55	110	--	--	282	524	62	16.0	0.7	0.89	--	613
				7.73 45	4.52 27	4.78 28	4.29 25	10.91 63	1.75 10	0.26 2	1052 1052					
6-11-64	--	7.7	1467	147	60	103	--	--	259	502	63	13.0	0.7	0.67	--	614
				7.34 44	4.93 29	4.48 27	4.25 25	10.45 63	1.78 11	0.21 1	1174 1017					

SANTA CLARA-CALLEGUAS HYDRO UNIT U0300

U03A0

OXNARD PLAIN HYDRO SUBUNIT

OXNARD HYDRO SUBAREA

U03A1

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Date sampled	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million				Mineral constituents in parts per million									
					Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fluo- ride F	Boron B	Sili- ca SiO ₂	Total Dissolved Solids at 105°C Computed CaCO ₃	
SANTA CLARA-CALLEGUAS HYDRO UNIT U0300																		
OXNARD PLAIN HYDRO SUBUNIT U03A0																		
OXNARD HYDRO SUBAREA U03A1																		
2N/22W-23C 2 S 9-23-64		--	8.0	1552	151 7.53 44	55 4.52 26	119 5.17 30	--	--	270 4.43 26	511 10.64 62	61 1.72 10	16.0 0.26 2	0.7	0.80	--	1149 1047	603
2N/22W-23C 3 S 12-11-63		--	7.4	1398	144 7.19	52 4.28	108 4.70	--	--	269 4.41	485 10.10	58 1.64	--	0.6	0.74	--	1001	574
3-18-64		--	8.0	1396	142 7.09	43 3.54	108 4.70	--	--	275 4.51	442 9.20	56 1.58	--	0.6	0.77	--	916	532
6- 9-64		--	7.6	1412	146 7.29 47	47 3.87 25	103 4.48 29	--	--	274 4.49 28	463 9.64 61	57 1.61 10	2.0 0.03	0.5	0.54	--	1087 954	558
9-23-64		--	7.8	1443	143 7.14 45	45 3.70 23	119 5.17 32	--	--	274 4.49 28	470 9.79 62	56 1.58 10	3.0 0.05	0.6	0.63	--	1069 972	542
2N/22W-23G 1 S 12-11-63		--	--	1703	197 9.83 49	59 4.85 24	123 5.35 27	--	--	268 4.39 22	641 13.35 66	81 2.28 11	8.0 0.13 1	0.7	0.94	--	1306 1242	735
3-18-64		--	7.7	1767	182 9.08 47	57 4.69 24	124 5.39 28	--	--	271 4.44 23	576 11.99 63	78 2.20 12	23.0 0.37 2	0.7	0.93	--	1183 1175	689
6- 9-64		--	7.6	1550	151 7.53 44	60 4.93 29	110 4.78 28	--	--	260 4.26 25	533 11.10 64	64 1.80 10	13.0 0.21 1	0.9	0.94	--	1175 1061	623

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million							Mineral constituents in parts per million						
				Calcium Mg	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total hardness as CaCO ₃	
2N/22W-23G 1 S 9-23-64	--	7.7	1678	170 8.48 46	57 4.69 25	122 5.30 29	--	--	270 4.43 24	545 11.35 62	72 2.03 11	29.0 0.47 3	0.7	0.99	--	1259 1129	659
2N/22W-23G 2 S 12-11-63	--	7.5	1707	185 9.23 47	56 4.61 23	136 5.91 30	--	--	274 4.49 22	674 12.99 65	81 2.28 11	14.0 0.23 1	0.8	0.82	--	1241 1232	693
3-18-64	--	8.0	1690	167 8.33 45	56 4.61 25	129 5.61 30	--	--	278 4.56 24	562 11.70 62	75 2.12 11	25.0 0.40 2	0.7	0.79	--	1230 1152	648
6- 9-64	--	7.8	1608	151 7.53 42	58 4.77 27	125 5.44 31	--	--	276 4.52 25	533 11.10 62	71 2.00 11	20.0 0.32 2	0.8	0.75	--	1192 1095	615
9-23-64	--	7.8	1678	167 8.33 45	56 4.61 25	129 5.61 30	--	--	287 4.70 26	540 11.24 61	70 1.97 11	25.0 0.40 2	0.7	0.75	--	1246 1130	648
2N/22W-23J 1 S 11- 5-63	--	8.3	1675	174 8.68 43	66 5.43 27	133 5.78 29	6 0.15	0.87 4	257 4.21 22	573 11.93 61	74 2.09 11	28.0 0.45 2	1.1	0.76	34	1292 1242	706
2N/22W-23K 1 S 9-23-64	--	7.5	1888	187 9.33 45	69 5.67 27	132 5.74 28	--	--	306 5.02 24	600 12.49 60	84 2.37 11	48.0 0.77 4	0.7	0.93	--	1456 1272	751
2N/22W-23K 4 S 12-11-63	--	7.6	1275	131 6.54	36 2.96	100 4.35	--	--	258 4.23	403 8.39	49 1.38	--	0.4	0.69	--	899	475

OXNARD PLAIN HYDRO SUBUNIT U03A0
OXNARD HYDRO SUBAREA U03A1
SANTA CLARA-CALLEGUAS HYDRO UNIT U0300

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				Mineral constituents in parts per million							
				Calcium Co	Magnesium Mg	Sodium No	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂
OXNARD PLAIN HYDRO SUBUNIT															
OXNARD HYDRO SUBAREA															
U03A0															
SANTA CLARA-CALLEGUAS HYDRO UNIT U0300															
U03A1															
2N/22W-23K 4 S 3-18-64	--	8.2	1288	130 6.49	33 2.71	100 4.35	--	--	260 4.26	382 7.95	48 1.35	0.4	0.65	--	460
6- 9-64	--	7.9	1298	127 6.34	37 3.04	100 4.35	--	--	257 4.21	397 8.27	49 1.38	0.3	0.50	--	469
9-23-64	--	8.1	1318	129 6.44	39 3.21	103 4.48	--	--	260 4.26	398 8.29	49 1.38	0.4	0.69	--	483
2N/22W-23O 1 S 1-18-64	--	7.8	1550	188 9.38	59 4.85	115 5.00	4 0.10	0	305 5.00	571 11.89	73 2.06	0.4	0.68	20	712
2N/22W-25R 2 S 8-20-64	67	7.1	1858	214 10.68	79 6.50	132 5.74	5 0.13	0	296 4.85	735 15.30	91 2.57	0.9	0.80	--	860
2N/22W-26F99 S 10-28-63	--	7.3	1526	165 8.23	49 4.03	119 5.17	--	--	275 4.51	526 10.95	66 1.86	0.7	0.86	--	613
11-29-63	--	7.6	1484	160 7.98	49 4.03	118 5.13	--	--	267 4.38	516 10.74	66 1.86	0.7	0.67	--	601
1-27-64	--	7.4	1636	169 8.43	54 4.44	128 5.57	--	--	267 4.38	566 11.78	75 2.12	0.7	0.75	--	644
				46	24	30			24	64	12				1129

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million percent reactance value				Mineral constituents in parts per million				
				Calcium M g	Magne-sium M g	Sodium Na	Potas-sium K	Carbon-ate CO ₃	Bicar-bonate HCO ₃	Sulfate SO ₄	Chlo-ride Cl	Ni-tro-NO ₃	Fluo-ride F	Boron B	Sili-co SiO ₂	I.D.S. Evap. I.D.S. Evap. I.D.S. Evap. I.D.S. Evap. Hardness as CaCO ₃
SANTA CLARA-CALLEGUAS HYDRO UNIT U0300																
OXNARD PLAIN HYDRO SUBUNIT U03A0																
OXNARD HYDRO SUBAREA U03A1																
2N/22W-26F99 S 2-24-64	--	7.5	1498	169 8.43	47 3.87	119 5.17	--	--	274 4.49	509 10.60	67 1.89	0.78	0.6	11.0 0.18	--	615
5- 4-64	--	8.0	1421	141 7.04	46 3.78	119 5.17	--	--	267 4.38	481 10.01	59 1.66	0.69	0.7	11.0 0.18	--	541
7-20-64	--	7.5	1457	147 7.34	43 3.54	114 4.96	--	--	263 4.31	461 9.60	60 1.69	0.82	0.7	10.0 0.16	--	544
8-17-64	--	7.6	1528	150 7.49	54 4.44	119 5.17	--	--	282 4.62	502 10.45	65 1.83	0.88	0.7	15.0 0.24	--	597
2N/22W-27L 1 S 11- 7-63	--	7.8	1414	152 7.58	61 5.02	104 4.52	6	0	329 5.39	469 9.76	61 1.72	0.68	0.9	23.0 0.37	30	631
2N/22W-27M 2 S 5-21-64	--	8.2	1400	141 7.04	74 6.09	102 4.43	4	0	317 5.20	490 10.20	71 2.00	0.77	0.6	8.2 0.13	22	657
2N/22W-30P 1 S 6- 4-64	68	7.6	1602	184 9.18	62 5.10	119 5.17	4	0	263 4.31	563 11.72	88 2.48	0.58	0.8	41.0 0.66	37	715
2N/23W- 5L 1 S 2-14-64	54	7.9	2250	267 13.32	41 3.37	240 10.44	8	0	372 6.10	495 10.31	389 10.97	0.71	0.2	2.7 0.04	29	835
				49	12	38	1	22	38		40					1656

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million										Mineral constituents in parts per million				
				Calcium Mg	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fluo- ride F	Boron B	Sili- ca SiO ₂	I.D.S. Total Hardness CaCO ₃	Total Hardness CaCO ₃	
SANTA CLARA-CALLEGUAS HYDRO UNIT U0300																		
OXNARD PLAIN HYDRO SUBUNIT U03A0																		
OXNARD HYDRO SUBAREA U03A1																		
2N/23W-23C 1 S 6-11-64	--	7.9	1562	153 7.63 44	59 4.85 28	110 4.78 28	--	--	281 4.61 27	511 10.64 61	63 1.78 10	20.0 0.32 2	0.7	0.79	--	1200 1056	624	
9-23-64	--	8.0	1639	160 7.98 43	62 5.10 28	122 5.30 29	--	--	305 5.00 28	521 10.85 60	64 1.80 10	23.0 0.37 2	0.7	0.81	--	1214 1103	655	
2N/23W-25H 1 S 2-14-64	--	7.4	1497	151 7.53 44	42 3.45 20	136 5.91 35	5 0.13 1	0	268 4.39 26	490 10.20 61	71 2.00 12	13.0 0.21 1	1.0	0.47	--	1122 1041	549	
2N/23W-25M 1 S 2-14-64	--	7.5	1460	147 7.34 43	43 3.54 21	135 5.87 35	5 0.13 1	0	295 4.84 29	480 9.99 60	63 1.78 11	3.5 0.06	1.0	0.55	--	1110 1023	544	
6- 4-64	67	7.3	1377	141 7.04 42	45 3.70 22	133 5.78 35	0 0.13 1	0	288 4.72 29	482 10.04 62	54 1.52 9	1.5 0.02	0.8	0.52	35	1060 1039	537	
2N/23W-25Q 1 S 6- 4-64	--	7.6	1295	127 6.34 42	41 3.37 22	120 5.22 35	4 0.10 1	0	259 4.25 28	442 9.20 61	52 1.47 10	2.8 0.05	0.8	0.47	36	987 953	486	
2N/23W-36A 1 S 11-22-63	--	7.5	1322	131 6.54	37 3.04	119 5.17	--	--	262 4.29	435 9.06	56 1.58	--	0.6	0.48	--	980	479	
5- 5-64	--	7.9	1352	125 6.24	39 3.21	119 5.17	--	--	258 4.23	432 8.99	56 1.58	--	0.6	0.54	--	988	473	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million						Mineral constituents in parts per million						
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total Dissolved Solids Computed
SANTA CLARA-CALLEGUAS HYDRO UNIT U0300																
OXNARD PLAIN HYDRO SUBUNIT U03A0																
OXNARD HYDRO SUBAREA U03A1																
2N/23W-36A 1 S 6- 4-64	68	8.0	1270	126 6.29 43	41 3.37 23	115 5.00 34	4 0.10 1	0	259 4.25 29	432 8.99 61	50 1.41 10	1.6 0.03	0.50	37	976 935	483
PLEASANT VALLEY HYDRO SUBAREA U03A2																
1N/20W- 6J 1 S 7- 8-64	--	7.2	1850	70 3.49 15	125 10.28 45	210 9.13 40	3 0.08	0	391 6.41 28	377 7.85 34	305 8.60 38	3.0 0.05	0.47	--	1434 1286	689
1N/21W- 3L 1 S 11- 8-63	--	7.5	988	97 4.84	28 2.30	82 3.57	--	--	245 4.02	247 5.14	60 1.69	--	0.30	--	704	357
5- 5-64	--	7.8	1084	95 4.74 43	25 2.06 19	97 4.22 38	--	--	255 4.18 37	240 5.00 45	70 1.97 18	3.0 0.05	0.26	--	713 656	340
1N/21W-13L 1 S 12- 5-63	67	8.0	959	92 4.59 42	32 2.63 24	84 3.65 33	3 0.08 1	0	256 4.20 38	246 5.12 47	58 1.64 15	2.5 0.04	0.25	43	660 687	361
1N/21W-150 1 S 12- 5-63	--	8.1	1164	77 3.84 29	42 3.45 26	130 5.65 43	4 0.10 1	0	327 5.36 41	198 4.12 32	125 3.53 27	1.5 0.02	0.32	55	750 794	365
1N/21W-22L 1 S 8-25-64	--	7.4	1590	67 3.34 19	70 5.76 34	182 7.91 46	6 0.15 1	0	354 5.80 34	268 5.58 32	209 5.89 34	0.0	0.53	--	1061 977	455

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million reactance				Mineral constituents in parts per million						
				Calcium	Magne- sium	Sodium	Potas- sium	Carbon- ate	Bicar- bonate	Sulfate	Chlo- ride	Chlo- ride	NO ₃	Ful- lide	Bor- on	Sul- fur	I.D.S. Evap. 180°C as Computed	Total Hardness as CaCl ₂
Date sampled				Co	Mg	No	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	S	Comp.	CaCl ₂	
SANTA CLARA-CALLEGUAS HYDRO. UNIT U0300																		
OXNARD PLAIN HYDRO SUBUNIT U03A0																		
PLEASANT VALLEY HYDRO SUBAREA U03A2																		
2N/20W-20E 2 S 10- 7-63	70	8.2	1470	76 3.79 22	87 7.15 42	135 5.87 35	3 0.08	0	503 8.24 48	232 4.83 78	140 3.95 23	8.5 0.14 1	0.5	0.20	67	981	547	547
2N/20W-30C 1 S 2- 4-64	--	8.1	2200	199 9.93 34	70 5.76 20	305 13.26 46	6 0.15 1	0	345 5.65 20	774 16.11 57	234 6.60 23	0.0	0.2	0.87	31	1798	785	785
2N/20W-30H 1 S 2- 4-64	74	7.7	1800	90 4.49 22	60 4.93 24	257 11.17 54	6 0.15 1	0	336 5.51 26	337 7.02 33	301 8.49 40	0.0	0.4	0.71	51	1246	471	471
2N/20W-30Q 1 S 12-10-63	--	8.0	1754	117 5.84 31	108 8.88 46	100 4.35 23	1 0.03	0	444 7.28 38	69 1.44 8	358 10.10 53	17.0 0.27 1	0.2	0.28	55	1150	737	737
2N/20W-33R 2 S 10- 8-63	--	7.4	1648	98 4.89 28	101 8.31 47	100 4.35 25	1 0.03	0	436 7.15 41	54 1.12 6	322 9.08 52	3.0 0.05	0.3	0.26	52	1042	661	661
2N/21W-19A 2 S 11-27-63	--	7.4	1526	159 7.93 45	50 4.11 23	128 5.57 32	--	--	285 4.67 26	540 11.24 63	63 1.78 10	4.0 0.06	--	--	--	946	602	602
5- 4-64	--	7.9	1672	158 7.88 42	62 5.10 27	132 5.74 31	--	--	281 4.61 25	576 11.99 64	73 2.06 11	7.0 0.11 1	0.7	0.80	--	1146 1084	650	650
2N/21W-23R 2 S 10- 3-63	68	7.4	1284	128 6.39 45	37 3.04 22	104 4.52 32	4 0.10 1	0	261 4.28 31	277 5.77 41	92 2.59 19	82.0 1.32 9	0.5	0.38	42	909	472	472

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million							Mineral constituents in parts per million						
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	Total Hardness as CaCO ₃	
Date sampled				Co	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂	Computed	Total Hardness as CaCO ₃
SANTA CLARA-CALLEGUAS HYDRO UNIT U0300																	
OXNARD PLAIN HYDRO SUBUNIT U03A0																	
PLEASANT VALLEY HYDRO SUBAREA U03A2																	
2N/21W-23R 3 S 10- 3-63	74	7.8	964	47 2.35 24	23 1.89 19	125 5.44 55	0.13	5	0	126 2.07 22	237 4.93 52	88 2.48 26	0.4	0.32	5	613 595	212
2N/21W-33A 1 S 12- 5-63	68	7.5	2427	248 12.38 42	97 7.98 27	210 9.13 31	0.08	3	0	261 4.28 15	934 19.45 66	200 5.64 19	0.9	0.28	55	1952 1881	1019
2N/21W-35K 1 S 3-17-64	--	6.9	2681	139 6.94 33	57 4.69 22	220 9.57 45	0.15	6	0	283 4.64 17	477 9.93 36	204 5.75 21	0.6	0.76	40	1680 1752	582
2N/21W-36N 4 S 12- 6-63	--	7.7	1842	173 8.63 40	68 5.59 26	170 7.39 34	0.13	5	0	276 4.52 21	547 11.39 53	200 5.64 26	0.7	0.50	47	1350 1353	712

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				Mineral constituents in parts per million									
				Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total Dissolved Solids (TDS) Computed	Total Dissolved Solids (TDS) Measured
SANTA PAULA HYDRO SUBUNIT U03B0																	
SANTA PAULA HYDRO SUBAREA U03B1																	
SANTA CLARA-CALLEGUAS HYDRO UNIT U0300																	
2N/22W-1M 1 S 4-16-64	--	7.9	1140	104 5.19 42	42 3.45 28	82 3.57 29	4 0.10 1	0	140 2.29 19	400 8.33 68	57 1.61 13	0.5 0.01	0.7	0.35	--	856 759	432
2N/22W-2K 7 S 8-19-64	68	7.7	1146	129 6.44 49	35 2.88 22	84 3.65 28	4 0.10 1	0	289 4.74 37	331 6.89 54	38 1.07 8	1.0 0.02	0.3	0.43	--	856 765	466
2N/22W-3M 3 S 2-13-64	--	7.8	1150	128 6.39 46	35 2.88 21	104 4.52 33	4 0.10 1	0	305 5.00 36	357 7.43 53	50 1.41 10	9.3 0.15 1	0.2	0.42	21	920 859	464
2N/22W-12D 1 S 11-7-63	--	7.8	1790	167 8.33 39	60 4.93 23	182 7.91 37	--	--	322 5.28 25	646 13.45 65	73 2.06 10	4.0 0.06	0.6	0.58	--	1357 1291	664
5-4-64	--	7.9	1695	151 7.53 40	52 4.28 23	162 7.04 37	--	--	285 4.67 25	593 12.35 65	69 1.95 10	4.0 0.06	0.5	0.64	--	1239 1172	591
3N/21W-9R 3 S 10-23-63	68	8.0	1060	129 6.44 51	29 2.38 19	88 3.83 30	2 0.05	0	288 4.72 37	327 6.81 54	39 1.10 9	0.0	0.4	0.48	26	844 782	441
3N/21W-12E 7 S 8-28-64	--	7.8	2646	318 15.87 46	116 9.54 28	200 8.70 25	6 0.15	0	455 7.46 22	1028 21.40 63	164 4.62 14	23.0 0.37 1	0.9	0.64	24	2220 2104	1272
3N/21W-15C 2 S 10-22-63	70	7.9	1200	124 6.19 40	62 5.10 33	91 3.96 26	3 0.08 1	0	208 3.41 22	483 10.06 65	64 1.80 12	18.0 0.29 2	0.4	0.55	23	1120 971	565

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million reagent value				Mineral constituents in parts per million					
				Calcium Mg	Magne- sium	Sodium No	Potas- sium	Carbon- ate	Bicar- bonate	Sulfate SO ₄	Chlo- ride	Ni- trate	Fluo- ride	Baron B	Sili- co S-O ₂	I.D.S. Exp. 180°C Exp. 105°C Computed	Total hardness CaCO ₃
SANTA CLARA-CALLEGUAS HYDRO UNIT U0300																	
SANTA PAULA HYDRO SUBUNIT U03B0																	
SANTA PAULA HYDRO SUBAREA U03B1																	
3N/21W-16K 1 S 8-14-64	66	7.7	1698	206 10.28 49	66 5.43 26	116 5.04 24	4 0.10	0	349 5.72 28	605 12.60 61	83 2.34 11	2.8 0.05	0.8	0.65	--	1389 1256	786
3N/21W-16K 2 S 10-24-63	68	7.6	1700	220 10.98 45	74 6.09 25	163 7.09 29	4 0.10	0	377 6.18 26	688 14.32 60	117 3.30 14	2.7 0.04	0.2	0.79	22	1644 1477	854
3N/21W-21B 1 S 11-22-63	--	7.6	2000	192 9.58 41	60 4.93 21	200 8.70 37	--	--	367 6.02 26	708 14.74 63	96 2.71 12	2.0 0.03	0.7	1.12	--	1532 1440	726
5- 4-64	--	7.9	2073	198 9.88	57 4.69	200 8.70	--	--	354 5.80	725 15.09	96 2.71	--	0.7	0.99	--	1642	729
8-14-64	67	7.6	2010	198 9.88 41	70 5.76 24	195 8.48 35	6, 0.15, 1	0	405 6.64 27	707 14.72 61	104 2.93 12	1.0 0.02	0.8	1.12	--	1625 1482	783
3N/21W-21F 1 S 8-14-64	--	7.8	1924	148 7.39 32	74 6.09 27	212 9.22 40	6 0.15 1	0	359 5.88 26	692 14.41 63	90 2.54 11	0.0	0.9	1.45	--	1533 1401	675
3N/21W-29B 1 S 10-29-63	--	7.8	2297	238 11.88	75 6.17	230 10.00	--	--	481 7.88	785 16.34	143 4.03	--	0.7	1.20	--	1824	903
5- 6-64	--	7.7	2263	199 9.93	78 6.41	220 9.57	--	--	426 6.98	687 14.30	168 4.74	--	0.7	1.20	--	1779	818

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				Mineral constituents in million equivalents per million				Mineral constituents in parts per million						
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	I.D.S. Expt. 180°C	Total hardness as CaCO ₃	
Date sampled				Co	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂	Exp. 105°C	CaCO ₃	
SANTA PAULA HYDRO SUBUNIT																		
SANTA PAULA HYDRO SUBAREA																		
U03B0																		
U03B1																		
SANTA CLARA-CALLEGUAS HYDRO UNIT U0300																		
3N/21W-31E 1 S	--	7.8	2586	245	72	297	--	--	404	1007	109	--	0.7	0.88	--	2043		908
11-29-63				12.23	5.92	12.91			6.62	20.97	3.07							
5- 4-64	--	7.9	2352	274	79	190	--	--	362	948	99	--	0.6	0.70	--	2008		1009
				13.67	6.50	8.26			5.93	19.74	2.79							
3N/22W-11H 1 S	74	8.1	2800	148	131	455	7	0	415	1086	284	15.0	1.0	1.10	20	2542		909
10-23-63				7.39	10.77	19.78	0.18		6.80	22.61	8.01	0.24				2352		
				19	28	52			18	60	21	1						
3N/22W-23F 2 S	71	7.9	1800	207	59	210	9	0	537	625	94	5.8	0.2	0.65	28	1618		760
10-23-63				10.33	4.85	9.13	0.23		8.80	13.01	2.65	0.09				1503		
				42	20	37	1		36	53	11							
3N/22W-36K 4 S	--	7.7	1272	160	45	73	4	0	309	386	64	1.0	0.7	0.36	--	983		584
8-20-64				7.98	3.70	3.17	0.10		5.06	8.04	1.80	0.02				886		
				53	25	21	1		34	54	12							
4N/20W-34R 1 S	--	7.3	1311	144	46	90	--	--	289	405	53	25.0	0.7	0.79	--	946		549
11-22-63				7.19	3.78	3.91			4.74	8.43	1.49	0.40				907		
				48	25	26			31	56	10	3						
5- 4-64	--	8.0	1306	138	44	87	--	--	289	370	55	25.0	0.8	0.75	--	941		526
				6.89	3.62	3.78			4.74	7.70	1.55	0.40				863		
				48	25	26			33	54	11	3						

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million				Mineral constituents in					
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	I.D.S. Exap. 105°C as CaCO ₃ Computed	Total Hardness as CaCO ₃
Date sampled				Co	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂		
SANTA CLARA-CALLEGUAS HYDRO UNIT U0300																	
SANTA PAULA HYDRO SUBUNIT U03B0																	
SISAR HYDRO SUBAREA U03B2																	
4N/21W-18C 1 S	60	7.4	800	100	29	29	1	0	245	202	16	2.2	0.2	0.08	16	538	369
10-10-63				4.99	2.38	1.26	0.03		4.02	4.21	0.45	0.04					
				58	27	15			46	48	5					516	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				Mineral constituents in parts per million				Mineral constituents in parts per million				
				Calcium M/g	Magne-sium M/g	Sodium Na	Potas-sium K	Carbon-ate CO ₃	Bicar-bonate HCO ₃	Sulfate SO ₄	Chlo-ride Cl	Ni-trate NO ₃	Fluo-ride F	Boron B	Sili-co SiO ₂	Total Dissolved Solids Computed
SANTA CLARA-CALLEGUAS HYDRO UNIT U0300																
SESPE HYDRO SUBUNIT U03C0																
FILLMORE HYDRO SUBAREA U03C1																
3N/20W-3N 2 S 11-22-63	--	7.2	1492	164 8.18 47	61 5.02 29	97 4.22 24	--	--	292 4.79 28	497 10.35 60	51 1.44 8	45.0 0.73 4	0.8	0.85	--	661 1120 1060
5- 4-64	--	8.1	1372	144 7.19 47	52 4.28 28	86 3.74 25	--	--	284 4.65 30	415 8.64 57	42 1.18 8	51.0 0.82 5	0.9	0.77	--	574 1050 931
3N/20W-5C 2 S 10-10-63	67	7.5	1020	139 6.94 50	53 4.36 31	58 2.52 18	2 0.05	0	320 5.24 37	337 7.02 50	29 0.82 6	62.0 1.00 7	0.4	0.17	20	565 930 858
3N/20W-5D 1 S 10-10-63	69	7.4	920	123 6.14 51	52 4.28 35	38 1.65 14	2 0.05	0	333 5.46 44	236 4.91 40	27 0.76 6	74.0 1.19 10	0.4	0.17	19	521 824 735
3N/20W-5D 2 S 10-10-63	--	7.9	920	115 5.74 49	47 3.87 33	46 2.00 17	2 0.05	0	179 2.93 26	309 6.43 57	34 0.96 9	58.0 0.94 8	0.4	0.21	20	481 838 720
3N/20W-9F 1 S 10-10-63	72	8.2	3000	429 21.41 46	152 12.50 27	277 12.04 26	9 0.23	0	412 6.75 14	1611 33.54 72	177 4.99 11	84.0 1.35 3	1.0	1.14	23	1697 3228 2967
3N/21W-12C 1 S 10-23-63	--	8.0	2000	260 12.97 48	79 6.50 24	175 7.61 28	2 0.05	0	412 6.75 25	783 16.30 61	106 2.99 11	45.0 0.73 3	0.4	0.71	16	974 1762 1670
3N/21W-12D 1 S 10-23-63	--	7.9	2900	365 18.21 50	88 7.24 20	247 10.74 30	2 0.05	0	284 4.65 13	1245 25.92 73	160 4.51 13	24.0 0.39 1	0.4	0.29	15	1274 2578 2286

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million										Mineral constituents in parts per million				
				Calcium Mg	Magnesium Mg	Sodium Na	Potassium K	Chloride Cl	Sulfate SO ₄	Bicarbonate HCO ₃	Carbonate CO ₃	Nitrate NO ₃	Fluoride F	Iron B	Silica SiO ₂	Total Hardness as CaCO ₃		
SESPE HYDRO SUBUNIT U0330														SANTA CLARA-CALLEGUAS HYDRO UNIT U0300				
FILLMORE HYDRO SUBAREA U03C1																		
3N/21W-12D 2 S 10-23-63	--	7.4	3300	493 24.60 52	96 7.90 17	335 14.57 31	0.15	6	0	403 6.61 14	1533 31.92 68	277 7.81 17	34.0 0.55 1	0.4	0.47	16	3120 2989	1626
3N/21W-12H 1 S 11-19-63	--	7.6	1217	125 6.24 46	43 3.54 26	86 3.74 28	--	--	--	258 4.23 31	385 8.02 59	41 1.16 9	11.0 0.18 1	0.9	0.60	--	869 819	489
5-- 4-64	--	8.0	1231	128 6.39 47	41 3.37 25	90 3.91 29	--	--	--	263 4.31 31	390 8.12 59	39 1.10 8	12.0 0.19 1	0.8	0.66	--	903 831	488
4N/20W-12O 1 S 10-11-63	66	7.9	1080	98 4.89 42	31 2.55 22	96 4.17 36	2	0.05	0	152 2.49 21	299 6.23 53	84 2.37 20	44.0 0.71 6	0.6	1.86	18	806 749	372
4N/20W-23N 1 S 10-10-63	66	8.1	600	76 3.79 52	20 1.64 22	42 1.83 25	2	0.05	0	222 3.64 50	112 2.33 32	30 0.85 12	33.0 0.53 7	0.6	0.28	19	478 444	272
4N/20W-23O 1 S 10-11-63	63	7.8	940	112 5.59 52	39 3.21 30	45 1.96 18	2	0.05	0	108 1.77 16	283 5.89 54	76 2.14 20	67.0 1.08 10	0.4	0.72	19	766 697	440
4N/20W-24D 1 S 10-23-63	--	7.3	1200	147 7.34 49	55 4.52 30	72 3.13 21	3	0.08	0	336 5.51 36	304 6.33 41	103 2.90 19	34.0 0.55 4	0.4	1.24	15	958 900	593
4N/20W-25C 1 S 11-15-63	--	7.3	1390	156 7.78 49	55 4.52 28	84 3.65 23	--	--	--	313 5.13 32	429 8.93 56	55 1.55 10	16.0 0.26 2	0.9	0.92	--	1030 991	615

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Date sampled	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million										Mineral constituents in parts per million				
					Calcium Mg	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fluo- ride F	Baron B	Sili- co SiO ₂	Total Hardness as CaCO ₃	Evap. 100°C Computed	Evap. 105°C Computed
SANTA CLARA-CALLEGUAS HYDRO UNIT U0300																			
SESPE HYDRO SUBUNIT U03C0																			
FILLMORE HYDRO SUBAREA U03C1																			
4N/20W-25C 1 S 5- 8-64		--	7.3	1348	145 7.24 50	48 3.95 27	75 3.26 23	--	--	302 4.95 34	369 7.68 53	55 1.55 11	18.0 0.29 2	0.9	0.90	--	560	945 860	
4N/20W-25D 1 S 10-29-63		64	8.3	1049	90 4.49 39	20 1.64 14	120 5.22 46	3 0.08	14 0.47 4	163 2.67 24	203 4.23 38	133 3.75 34	0.7 0.01	1.4	3.50	15	307	675 684	
4N/20W-25J 1 S 10-11-63		63	7.4	1960	184 9.18 35	135 11.10 43	128 5.57 21	6 0.15 1	0 0.47 4	506 8.29 31	696 14.49 55	95 2.68 10	58.0 0.94 4	0.4	0.81	25	1015	1718 1577	
4N/20W-26D 1 S 10-10-63		67	7.7	800	113 5.64 56	27 2.22 22	50 2.17 22	2 0.05	0 0.42 4	257 4.21 41	211 4.39 43	36 1.02 10	34.0 0.55 5	0.4	0.38	17	393	668 617	
4N/20W-34K 1 S 6-12-64		--	7.5	1678	211 10.53 58	49 4.03 22	84 3.65 20	--	--	443 7.26 40	345 7.18 39	97 2.74 15	72.0 1.16 6	0.3	0.50	--	729	1177 1077	
4N/20W-36P 2 S 2- 6-64		--	7.7	1230	130 6.49 42	59 4.85 31	94 4.09 26	5 0.13 1	0 0.29 2	276 4.52 29	477 9.93 63	37 1.04 7	16.0 0.26 2	0.8	0.47	21	567	1048 976	
4N/20W-36Q 1 S 5-15-64		61	7.4	1308	127 6.34 42	53 4.36 29	95 4.13 28	5 0.13 1	0 0.31 3	272 4.46 31	415 8.64 59	46 1.30 1	9.0 0.15 1	0.9	0.48	--	595	973 885	

TABLE E-1
 MINERAL ANALYSES OF GROUND WATER 1963/64
 LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million						Mineral constituents in parts per million								
				Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total Dissolved Solids as CaCO ₃		
SANTA CLARA-CALLEGUAS HYDRO UNIT U0300																		
PIRU HYDRO SUBUNIT U03D0																		
PIRU HYDRO SUBAREA U03D1																		
4N/17W-22D 1 S 8-20-64	--	7.7	3500	160 7.98 18	30 2.47 6	780 33.91 76	0.08	3	0	184 3.02 7	1560 32.48 75	284 8.01 18	0.0	2.40	2.38	--	2682 2912	523
4N/18W-3K 1 S 5-27-64	--	7.8	1350	127 6.34	53 4.36	100 4.35	--	--	--	315 5.16	434 9.04	37 1.04	--	1.1	1.17	--	990	535
4N/18W-3Q 2 S 10-17-63	66	7.4	1700	196 9.78 43	56 4.61 20	190 8.26 36	5 0.13 1	0	683 11.19 50	461 9.60 43	60 1.69 7	4.4 0.07	4.4	0.6	1.24	27	1368 1337	720
5-27-64	--	7.9	1846	156 7.78 36	72 5.92 28	179 7.78 36	--	--	636 10.42 48	456 9.49 44	62 1.75 8	4.0 0.06	4.0	0.8	1.31	--	1272 1244	686
4N/18W-19P 2 S 1- 9-64	60	7.8	1400	168 8.39 39	102 8.39 39	111 4.83 22	4 0.10	0	259 4.25 24	582 12.12 68	48 1.35 8	5.8 0.09	5.8	0.6	0.97	21	1196 1171	839
4N/18W-19R 1 S 11-19-63	--	7.6	1728	191 9.53 46	73 6.00 29	119 5.17 25	--	--	299 4.90 24	626 13.03 64	55 1.55 8	59.0 0.95	59.0	0.9	1.45	--	1341 1272	777
5- 4-64	--	8.1	1634	164 8.18 44	62 5.10 28	119 5.17 28	--	--	271 4.44 24	612 12.74 68	46 1.30 7	23.0 0.37	23.0	0.9	1.27	--	1288 1161	665
4N/18W-27B 1 S 10-17-63	62	7.7	3300	373 18.61 38	179 14.72 30	348 15.13 31	9 0.23	0	426 6.98 14	1724 35.89 74	160 4.51 9	89.0 1.44	89.0	1.0	1.17	17	3500 3111	1668

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million							parts per million equivalents per million reagent value					Mineral constituents in parts per million				
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fluo- ride F	Boron B	Sili- ca SiO ₂	I.D.S. Evap. 180°C Hardness as CaCO ₃	Total Evap. 105°C Hardness as CaCO ₃			
SANTA CLARA-CALLEGUAS HYDRO UNIT U0300																				
PIRU HYDRO SUBUNIT U03D0																				
PIRU HYDRO SUBAREA U03D1																				
4N/18W-27B 2 S 11-19-63	--	7.4	2883	304 15.17 40	111 9.13 24	308 13.39 36	--	--	437 7.16 19	1252 26.07 69	123 3.47 9	52.0 0.84 2	0.9	0.96	--	2413 2367	1216			
4N/19W-25C 2 S 10- 1-63	60	7.4	1400	180 8.98 47	67 5.51 29	107 4.65 24	4 0.10 1	0	275 4.51 23	635 13.22 68	54 1.52 8	13.0 0.21 1	0.8	1.20	24	1276 1221	725			
4N/19W-25M 2 S 11-19-63	--	7.9	1637	177 8.83 46	74 6.09 32	97 4.22 22	--	--	232 3.80 20	643 13.39 69	51 1.44 7	42.0 0.68 4	0.9	1.02	--	1257 1200	747			
5-15-64	--	7.7	1548	162 8.08 45	70 5.76 32	97 4.22 23	--	--	239 3.92 22	579 12.05 67	48 1.35 8	35.0 0.56 3	1.0	0.85	--	1187 1110	693			
4N/19W-26H 1 S 8-19-64	62	8.1	1374	131 6.54 40	65 5.35 33	98 4.26 26	4 0.10 1	0	223 3.65 23	521 10.85 69	42 1.18 7	8.0 0.13 1	0.5	0.81	--	980 1087	595			
4N/19W-33J 1 S 10-24-63	63	7.6	2500	369 18.41 51	117 9.62 27	180 7.83 22	6 0.15	0	381 6.24 18	1129 23.51 67	101 2.85 8	165.0 2.66 8	0.6	1.37	22	2348 2278	1403			
4N/19W-33K 1 S 1-10-64	--	8.2	1060	119 5.94 45	46 3.78 29	78 3.39 26	4 0.10 1	0	236 3.87 29	414 8.62 65	23 0.65 5	8.7 0.14 1	0.6	0.68	20	820 830	486			
4N/19W-33M 2 S 11-26-63	--	7.7	1102	114 5.69	40 3.29	80 3.48	--	--	254 4.16	366 7.62	22 0.62	--	1.1	0.60	--	793	449			

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million					Mineral constituents in parts per million						
				Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂
SANTA CLARA-CALLEGUAS HYDRO UNIT U0300															
PIRU HYDRO SUBUNIT U03D0															
PIRU HYDRO SUBAREA U03D1															
4N/19W-33M 2 S 5- 4-64	--	7.9	1092	106 5.29 45	39 3.21 27	77 3.35 28	--	--	228 3.74 31	357 7.43 62	21 0.59 5	8.0 0.13 1	0.1 0.70	799 721	425
5N/18W-15P 1 S 6- 5-64	--	7.9	1253	102 5.09	44 3.62	108 4.70	--	--	209 3.43	417 8.68	47 1.33	--	2.23	877	436
5N/18W-33G 2 S 5-27-64	--	7.4	3197	360 17.96 43	116 9.54 23	332 14.44 34	--	--	451 7.39 18	1594 33.19 80	28 0.79 2	2.0 0.03	0.6 0.38	2742 2655	1376

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million reactance value				Mineral constituents in parts per million						
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fuo- ride F	Boreh B	Sili- ca SiO ₂	To S- Epo- 105°C Epo- 105°C Computed	Total Hores as CaCO ₃	
SANTA CLARA-CALLEGUAS HYDRO UNIT U0300																		
UPPER SANTA CLARA R HYDRO SUBUNITU03E0																		
EASTERN HYDRO SUBAREA U03E1																		
4N/16W-14E 2 S 3-26-64	67	7.4	1355	121 6.04 38	63 5.18 33	103 4.48 28	0.05	2	0	380 6.23 39	257 5.35 34	108 3.05 19	80.0 1.29 8	0.6	0.41	30	1015 952	561
ACTON HYDRO SUBAREA U03E5																		
4N/13W-10Q 1 S 4-16-64	--	7.5	520	61 3.04 51	15 1.23 21	38 1.65 28	2 0.05 1	2	0	215 3.52 58	70 1.46 24	35 0.99 16	4.8 0.08 1	0.2	0.18	25	366 357	214
4N/13W-12C 4 S 4-16-64	64	7.3	490	58 2.89 54	12 0.99 18	33 1.43 27	2 0.05 1	2	0	196 3.21 59	59 1.23 23	30 0.85 16	8.3 0.13 2	0.2	0.23	25	346 324	194
5N/12W-28F 1 S 4-16-64	--	7.7	770	77 3.84 46	27 2.22 27	49 2.13 26	3 0.08 1	3	0	176 2.88 35	62 1.29 16	127 3.58 43	35.0 0.56 7	0.2	0.09	26	580 493	303
5N/12W-30K 1 S 4-16-64	--	7.6	735	73 3.64 46	32 2.63 33	35 1.52 19	6 0.15 2	6	0	147 2.41 31	44 0.92 12	138 3.89 49	41.0 0.66 8	0.2	0.09	26	517 467	314
5N/13W-25C 1 S 4-16-64	--	7.7	750	85 4.24 49	23 1.89 22	55 2.39 28	2 0.05 1	2	0	161 2.64 30	156 3.25 37	92 2.59 30	18.0 0.29 3	0.6	0.42	26	584 537	307

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent reactance value				Mineral constituents in parts per million					
				Calcium M/g	Magnesium M/g	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Barium B	Silica SiO ₂	Total I.D.S. Evap. 180°C hardness	Total I.D.S. Evap. 105°C hardness
SANTA CLARA-CALLEGUAS HYDRO UNIT U0300																	
CALLEGUAS-CONEJO HYDRO SUBUNIT U03F0																	
WEST LAS POSAS HYDRO SUBAREA U03F1																	
1N/21W-20N 5 S 6- 5-64	--	7.9	1124	114 5.69 44	38 3.13 24	95 4.13 32	5 0.13 1	0	359 5.88 44	282 5.87 44	47 1.33 10	11.0 0.18 1	0.6	0.68	39	830 809	441
1N/21W-20P 2 S 6- 5-64	--	8.2	1146	116 5.79 43	44 3.62 27	89 3.87 29	4 0.10 1	0	281 4.61 34	357 7.43 55	46 1.30 10	3.0 0.05	0.7	0.60	43	878 841	471
1N/21W-21N 1 S 6- 5-64	71	8.0	1022	104 5.19 44	33 2.71 23	85 3.70 32	3 0.08 1	0	275 4.51 38	281 5.85 50	47 1.33 11	1.6 0.03	0.5	0.36	43	746 734	395
1N/21W-21C 2 S 6-15-64	--	7.7	1550	88 4.39 27	84 6.91 43	110 4.78 29	6 0.15 1	0	293 4.80 29	207 4.31 26	261 7.36 45	2.0 0.03	0.2	0.61	--	1168 903	565
2N/21W- 8G 1 S 4-21-64	72	7.7	944	73 3.64 37	28 2.30 24	86 3.74 38	2 0.05 1	0	301 4.93 50	133 2.77 28	67 1.89 19	15.0 0.24 2	0.6	0.30	--	513 553	297
2N/21W- 8L 1 S 8-20-64	--	8.4	1063	88 4.39 37	35 2.88 24	102 4.43 38	3 0.08 1	26 0.87 7	277 4.54 39	207 4.31 37	65 1.83 16	9.0 0.15 1	0.5	0.25	37	700 709	364
EAST LAS POSAS HYDRO SUBAREA U03F2																	
2N/19W- 6R 2 S 2-27-64	--	6.9	3521	425 21.21 45	149 12.25 26	300 13.04 28	5 0.13	0	559 9.16 20	1260 26.23 57	354 9.98 22	37.0 0.60 1	0.8	1.28	40	3045 2847	1674

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in				parts per million equivalents per million				Mineral constituents in parts per million					
				Calcium M g	Magnesium M g	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	I.D.S. Expt. 105°C as Computed	Total hardness CaCO ₃
SANTA CLARA-CALLEGUAS HYDRO UNIT U0300																	
CALLEGUAS-CONEJO HYDRO SUBUNIT U03F0																	
EAST LAS POSAS HYDRO SUBAREA U03F2																	
2N/20W-9H 1 S 8-19-64	73	8.3	545	45 2.25 40	18 1.48 26	42 1.83 33	2 0.05 1	0	158 2.59 46	96 2.00 36	28 0.79 14	12.0 0.19 3	0.10	0.4	0.10	372 372 321	187
2N/20W-10D 1 S 8-18-64	--	7.9	528	57 2.84 51	17 1.40 25	30 1.30 23	2 0.05 1	0	192 3.15 56	59 1.23 22	31 0.87 16	21.0 0.34 6	0.07	0.4	0.07	377 377 312	212
2N/20W-16C 1 S 2-26-64	--	7.8	2278	214 10.68 40	71 5.84 22	230 10.00 37	6 0.15 1	0	305 5.00 19	689 14.34 54	252 7.11 27	1.5 0.02	0.84	0.7	0.84	1730 1654	827
3N/20W-34G 1 S 8-18-64	77	8.1	492	52 2.59 50	16 1.32 25	28 1.22 23	3 0.08 2	0	178 2.92 55	91 1.89 36	15 0.42 8	3.0 0.05 1	0.05	0.5	0.05	348 296	196
ARROYO SANTA ROSA HYDRO SUBAREA U03F3																	
2N/19W-21H 1 S 1-6-64	--	8.8	840	12 0.60 7	5 0.41 5	182 7.91 88	2 0.05 1	18 0.60 7	214 3.51 40	158 3.29 37	52 1.47 17	0.0	0.39	0.2	0.39	542 583	51
2N/20W-24E 1 S 10-8-63	74	8.4	957	46 2.30 22	60 4.93 47	73 3.17 30	2 0.05	34 1.13 11	254 4.16 40	95 1.98 19	101 2.85 27	24.0 0.39 4	0.11	0.4	0.11	638 620	362

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million							Mineral constituents in parts per million						
				Calcium Mg	Magne- sium	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fluo- ride F	Baron B	Sili- co SiO ₂	Total I.D.S. Evap IBOC Evap I.D.S. as CaCO ₃	
SANTA CLARA-CALLEGUAS HYDRO UNIT U0300																	
CALLEGUAS-CONEJO HYDRO SUBUNIT U03F0																	
CONEJO VALLEY HYDRO SUBAREA U03F4																	
1N/19W-7F 1 S 10-4-63	69	8.3	842	37 1.85 19	31 2.55 27	116 5.04 53	2 0.05 1	16 0.53 5	332 5.44 23	108 2.25 16	56 1.58 16	2.0 0.03	0.4	0.08	25	501 557	220
1N/19W-18B 9 S 11-19-63	--	8.3	1140	80 3.99 28	54 4.44 31	135 5.87 41	3 0.08 1	6 0.20 1	333 5.46 37	353 7.35 50	52 1.47 10	5.8 0.09 1	0.2	0.07	36	900 889	422
1N/19W-18H15 S 10-4-63	62	8.1	1462	130 6.49 40	88 7.24 44	59 2.57 16	1 0.03	0	532 8.72 53	75 1.56 9	222 6.26 38	2.5 0.04	0.3	0.04	33	951 872	687
1N/20W-3J 1 S 10-24-63	76	7.8	696	53 2.64 33	36 2.96 37	54 2.35 30	0	0	293 4.80 60	96 2.00 25	42 1.18 15	0.8 0.01	0.3	0.08	53	440 479	280
1N/20W-15R 3 S 10-24-63	--	7.1	743	68 3.39 41	31 2.55 31	54 2.35 28	0	0	307 5.03 61	72 1.50 18	53 1.49 18	17.0 0.27 3	0.3	0.06	36	470 482	297
TIERRA REJADA VALLEY HYDRO SUBAREA U03F5																	
2N/19W-12M 2 S 10-29-63	74	7.8	880	54 2.69 26	63 5.18 50	58 2.52 24	2 0.05	0	232 3.80 36	217 4.52 43	73 2.06 20	4.4 0.07 1	0.2	0.14	53	704 639	394

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				Mineral constituents in parts per million				Total hardness as CaCO ₃															
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride		Nitrate	Boron	Silica	Fluoride	Iron	Copper	Zinc	Nickel	Vanadium	Chromium	Manganese	Lead	Other		
SANTA CLARA-CALLEGUAS HYDRO UNIT U0300																											
CALLEGUAS-CONEJO HYDRO SUBUNIT U0300				U03F8																							
SIMI VALLEY HYDRO SUBAREA				U03F0																							
2N/17W-8F 1 S 1-3-64	--	8.1	860	87	32	106	1	0	274	250	62	17.0	0.6	0.37	21	718	349										
				4.34	2.63	4.61	0.03	4.49	4.49	5.21	1.75	0.27	0.6	0.37	21	712											
2N/17W-14C 2 S 8-18-64	75	7.6	795	37	37	66	4	0	343	134	23	1.5	0.5	0.06	--	472	302										
				2.99	3.04	2.87	0.10	5.62	5.62	2.79	0.65	0.02	0.5	0.06	--	495											
2N/18W-1M 3 S 10-15-63	68	7.7	2700	33	34	32	1	62	62	31	7	4.9	0.6	1.83	33	2386	1182										
				14.82	8.80	11.44	0.15	6.29	6.29	22.42	6.01	0.08	0.6	1.83	33	2192											
2N/18W-8Q 3 S 1-3-64	--	7.6	2000	42	25	32		18	18	64	17	0.0	0.4	1.18	35	1810	933										
				339	21	197	5	366	366	821	149	0.0	0.4	1.18	35	1748											
				16.92	1.73	8.57	0.13	6.00	6.00	17.09	4.20	0.0	0.4	1.18	35	1761	862										
2N/18W-11B 2 S 10-15-63	68	7.9	1800	62	6	31		22	22	63	15	23.0	0.4	1.35	36	1628	178										
				263	50	185	5	328	328	779	124	0.37	0.4	1.35	36	1628											
				13.12	4.11	8.04	0.13	5.38	5.38	16.22	3.50	0.37	0.4	1.35	36	1628											
2N/18W-18G 2 S 10-9-63	--	8.3	430	52	16	32	1	21	21	64	14	5.9	0.6	0.08	34	278	178										
				40	19	34	1	11	11	35	38	0.10	0.6	0.08	34	278	178										
				2.00	1.56	1.48	0.03	2.80	2.80	0.73	1.07	0.10	0.6	0.08	34	278	178										
THOUSAND	OAKS	HYDRO	SUBAREA	39	31	29	1	55	55	14	21	2	0.6	0.29	55	1532	882										
				U03F8																							
1N/19W-2L 1 S 10-2-63	--	7.6	1916	182	104	145	6	0	571	600	66	11.0	0.6	0.29	55	1532	882										
				9.08	8.55	6.30	0.15	9.36	9.36	12.49	1.86	0.18	0.6	0.29	55	1532	882										
				38	36	26	1	39	39	52	8	1	0.6	0.29	55	1532	882										

TABLE E-1
 MINERAL ANALYSES OF GROUND WATER 1963/64
 LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million percent reactance value				Mineral constituents in parts per million					
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total Dissolved Solids TDS	Total Hardness Hardness
1N/19W-14C 3 S 10-24-63	72	7.2	1686	120	110	124	5	0	361	518	134	1.7	0.5	0.15	53	1210	753
				5.99 29	9.05 44	5.39 26	0.13 1	5.92 29	10.78 53	3.78 18	0.03				1244		
SANTA CLARA-CALLEGUAS HYDRO UNIT U0300																	
CALLEGUAS-CONEJO HYDRO SUBUNIT U03FO																	
THOUSAND OAKS HYDRO SUBAREA U03FB																	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Date sampled	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in					parts per million equivalents per million reactance value					Mineral constituents in parts per million				
					Calcium M g	Magne- sium M g	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fluo- ride F	Baron B	Sili- co SiO ₂	T.D.S. Exap 180°C as Compued	Total hardness as CaCO ₃	
TOPANGA HYDRO SUBUNIT U040D					MALIBU HYDRO UNIT U0400														
TOPANGA CANYON HYDRO SUBAREA U04A1																			
1S/16W-32G 1 S 10-18-63		--	7.4	1580	127 6.34 33	87 7.15 37	128 5.57 29	3 0.08	0	0	399 6.54 34	477 9.93 51	105 2.96 15	0.0	0.8	0.93	14	1264 1139	675
7-22-64		66	7.7	1550	98 4.89 26	93 7.65 41	137 5.96 32	3 0.08	0	0	396 6.49 36	427 8.89 49	102 2.88 16	0.0	0.4	0.87	--	1186 1056	628
1S/17W-32F 4 S 10-18-63		--	7.2	5000	559 27.89 44	278 22.86 36	295 12.83 20	4 0.10	0	0	357 5.85 9	595 12.39 19	1628 45.91 71	5.9 0.10	0.2	0.86	25	4852 3566	2540
12-23-63		--	7.1	5236	450 22.46 38	300 24.67 42	273 11.87 20	5 0.13	0	0	368 6.03 10	579 12.05 21	1405 39.62 68	12.0 0.19	0.6	0.63	59	4000 3265	2358
7-22-64		66	7.7	4400	497 24.80 49	160 13.16 26	290 12.61 25	14 0.36 1	0	0	363 5.95 12	550 11.45 23	1160 32.71 65	2.0 0.03	0.2	0.70	--	3558 2852	1900
1S/17W-32F 5 S 10-18-63		--	7.6	2950	401 20.01 57	74 6.09 17	210 9.13 26	3 0.08	0	0	364 5.97 17	482 10.04 28	696 19.63 55	0.0	0.2	0.57	20	2444 2066	1306

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million				Mineral constituents in parts per million				Mineral constituents in parts per million						
				Calcium mg	Magnesium mg	Sodium No	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total dissolved solids CaCO ₃		
MALIBU CREEK HYDRO SUBUNIT U0480 MALIBU CREEK HYDRO SUBAREA U0481 U0400																		
1S/17W-29P 1 S 10-18-63	63	7.2	1500	121 6.04 33	79 6.50 36	130 5.65 31	0.03	1	0	369 6.05 33	502 10.45 57	60 1.69 9	0.0	0.4	0.77	25	1318 1101	628
7-22-64	64	7.5	1750	124 6.19 30	110 9.05 44	122 5.30 26	0.05	2	0	388 6.36 30	576 11.99 57	93 2.62 12	0.0	0.2	0.70	--	1378 1219	763
1S/17W-32F 5 S 7-21-64	65	7.4	4000	461 23.00 49	179 14.72 31	220 9.57 20	0.10	4	0	384 6.29 13	522 10.87 23	1099 30.99 64	0.3	0.2	0.70	--	2778 2675	1888
RUSSELL VALLEY HYDRO SUBAREA U0485																		
1N/19W-24M 2 S 10-29-63	66	8.4	1600	30 1.50 8	18 1.48 8	365 15.87 84	0.10	4	8 0.27 1	537 8.80 47	368 7.66 41	64 1.80 10	3.6 0.06	0.2	0.21	31	1146 1156	149
SHERWOOD HYDRO SUBAREA U0486																		
1N/19W-29D 2 S 10-24-63	66	7.5	752	83 4.14 48	27 2.22 26	51 2.22 26	0.03	1	0	366 6.00 69	51 1.06 12	44 1.24 14	22.0 0.35 4	0.3	0.03	39	450 498	318
1N/20W-25C 1 S 2-31-64	66	8.1	900	78 3.89 37	35 2.88 27	88 3.83 36	0.05	2	0	390 6.39 59	133 2.77 26	57 1.61 15	0.0	0.2	0.24	30	586 615	339

TABLE E-1
 MINERAL ANALYSES OF GROUND WATER 1963/64
 LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million						Mineral constituents in parts per million								
				Calcium Mg	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	TDS Expressed as CaCO ₃ Computed	Total Hardness as CaCO ₃	
POINT DUME HYDRO SUBUNIT														U04C0				
ZUMA CANYON HYDRO SUBAREA														U04C6				
2S/18W-6M 2 S 10-17-63	60	7.2	1040	112 5.59 44	57 4.69 37	54 2.35 19	1 0.03	0	352 5.77 46	253 5.27 42	52 1.47 12	10.0 0.16 1	0.2	0.17	22	790 734	514	
7-21-64	65	7.5	1160	66 3.29 25	91 7.48 57	51 2.22 17	1 0.03	0	364 5.97 45	255 5.31 40	64 1.80 14	10.0 0.16 1	0.1	0.21	--	836 717	539	
TRANCAS CANYON HYDRO SUBAREA														U04C7				
1S/19W-35P 1 S 10-18-63	62	7.4	1100	112 5.59 42	56 4.61 35	72 3.13 23	0	339 5.56 42	258 5.37 40	81 2.28 17	4.1 0.07 1	0.2	0.40	26	910 776	510		
7-21-64	--	7.3	1260	79 3.94 27	89 7.32 50	76 3.30 23	1 0.03	0	371 6.08 42	283 5.89 41	86 2.43 17	2.0 0.03	0.2	0.42	--	894 799	563	
1S/19W-35O 2 S 10-18-63	62	7.4	1160	104 5.19 37	60 4.93 35	84 3.65 26	6 0.15 1	0	351 5.75 41	246 5.12 37	106 2.99 21	4.0 0.06	0.2	0.21	22	898 805	506	
7-21-64	62	7.3	1380	78 3.89 25	98 8.06 51	85 3.70 24	1 0.03	0	403 6.61 41	261 5.43 34	139 3.92 24	5.0 0.08	0.1	0.22	--	976 865	598	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million										Mineral constituents in parts per million			
				Mineral constituents in percent					million reactance value					Fluoride F	Boron B	Silica SiO ₂	I.D.S. Evap. BOCC as Exap. I.D.S.C. Computed CaCl ₂
Date sampled	Ca	Mg	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	I.D.S. Evap. BOCC as Exap. I.D.S.C. Computed				
MALIBU HYDRO UNIT																	
CAMARILLO HYDRO SUBUNIT U04D0																	
ARROYO SEQUIT HYDRO SUBAREA U04D4																	
1S/20W-25E 1 S 10-17-63	--	7.4	1010	83	60	64	3	0	302	262	58	0.0	0.6	1.54	44	850	454
				4.14	4.93	2.78	0.08		4.95	5.45	1.64						
				35	41	23	1		41	45	14						
7-21-64	73	7.4	1060	84	63	67	3	0	306	270	62	0.0	0.4	1.38	--	762	469
				4.19	5.18	2.91	0.08		5.02	5.62	1.75						
				34	42	24	1		41	45	14						
LITTLE SYCAMORE CY HYDRO SUBAREA U04D5																	
1S/20W-14K 1 S 12- 2-63	--	8.1	1120	113	45	99	2	0	474	246	35	0.0	0.1	0.18	23	814	467
				5.64	3.70	4.30	0.05		7.77	5.12	0.99						
				41	27	31			56	37	7						
1S/20W-14K 2 S 12- 2-63	--	7.4	1140	131	59	62	3	0	539	190	53	3.5	0.1	0.16	23	746	570
				6.54	4.85	2.70	0.08		8.83	3.96	1.49	0.06					
				46	34	19	1		62	28	10						
1S/20W-22P 1 S 7-21-64	71	7.7	1340	95	70	106	1	0	408	279	86	3.0	0.2	0.24	--	888	525
				4.74	5.76	4.61	0.03		6.69	5.81	2.43	0.05					
				31	38	30			45	39	16						
1S/20W-22P 2 S 10-17-63	--	7.2	1420	87	69	148	1	0	405	276	138	4.5	1.6	0.23	45	1286	501
				4.34	5.67	6.44	0.03		6.64	5.75	3.89	0.07					
				26	34	39			41	35	24						
7-21-64	70	7.6	1320	63	97	93	1	0	415	282	98	5.0	0.2	0.23	--	872	556
				3.14	7.98	4.04	0.03		6.80	5.87	2.76	0.08					
				21	53	27			44	38	18						

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent reactance value				Mineral constituents in parts per million					
				Calcium Mg	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Baron B	Sulfate SO ₄	I.D.S. Evap 105°C as Computed	Total hardness as CaCO ₃
CAMARILLO HYDRO SUBUNIT U04D0				MALIBU HYDRO UNIT U0400													
LA JOLLA VALLEY HYDRO SUBAREA U04D8																	
15/21W-1P1S	--	9.1	638	4	0	155	2	55	205	0	65	1.2	0.1	3.20	2	370	10
3-11-64				0.20		6.74	0.05	1.83	3.36		1.83	0.02				388	
				3		96	1	26	48		26						

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				Mineral constituents in parts per million					
				Calcium	Magne-sium	Sodium	Potas-sium	Carbon-ate	Bicar-bonate	Sulfate	Chlo-ride	Ni-trate	Fluo-ride	Boron	Sulf-ur	I.D.S. Expt. 160°C Expt. 105°C	Total hardness at 105°C Computed
Date sampled				Co	Mg	No	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	S-O ₂		
2S/14W-19K 2 S 11-13-63	--	7.8	1830	138	57	174	5	0	488	197	264	0.0	--	--	--		579
				6.89	4.69	7.57	0.13	1	41	8.00	4.10	7.44	38	1075			
7- 7-64	70	8.4	1850	109	60	168	6	0	352	191	270	1.8	--	--	--		519
				5.44	4.93	7.30	0.15	1	33	5.77	3.98	7.61	44	979			
2S/14W-19K 3 S 11-13-63	--	7.8	1250	90	38	120	9	0	410	128	136	4.0	--	--	--		381
				4.49	3.13	5.22	0.23	2	51	6.72	2.66	3.84	29	727			
3- 3-64	70	8.0	1210	88	37	127	--	0	409	116	132	7.5	--	--	--		372
				4.39	3.04	5.52	0.23	43	52	6.70	2.42	3.72	29	709			
4-20-64	72	8.6	1260	92	38	132	13	20	408	119	140	3.2	--	--	--		386
				4.59	3.13	5.74	0.33	2	48	6.69	2.48	3.95	29	758			
7- 7-64	73	8.5	1170	83	31	107	10	0	360	108	119	9.5	--	--	--		335
				4.14	2.55	4.65	0.26	2	51	5.90	2.25	3.36	29	645			
2S/15W-34F 1 S 3-25-64	--	8.6	1550	27	16	348	12	--	988	19	60	0.0	--	--	--		134
				1.35	1.32	15.13	0.31	2	89	16.19	0.40	1.69	9	968			
2S/15W-34K 1 S 3-16-64	--	7.7	909	59	28	92	2	0	118	156	111	60.0	--	--	--		262
				2.94	2.30	4.00	0.05	1	21	1.93	3.25	3.13	34	566			

COASTAL PL OF LA CO. HYDRO SUBUNITU05A0
 WEST COAST HYDRO SUBAREA U05A2
 L A SAN GABRIEL RIVER HYDRO UNIT U0500

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				Mineral constituents in million equivalents per percent				Mineral constituents in parts per million								
				Ca	Mg	Na	K	Ca	Mg	Na	K	Ca	Mg	Na	K	Fluoride F	Boron B	Sulfate SO ₄	Nitrate NO ₃	Silica SiO ₂
L A SAN GABRIEL RIVER HYDRO UNIT U0500																				
COASTAL PL. OF LA CO HYDRO SUBUNITU05A0																				
WEST COAST HYDRO SUBAREA U05A2																				
35/13W-29D 6 S 7-24-64	76	7.5	417	34 1.70 38	10 0.82 19	42 1.83 41	3 0.08 2	3 0.08 2	0 3.62 81	0 3.62 81	0 3.62 81	0 3.62 81	0 3.62 81	0 3.62 81	0 3.62 81	0 3.62 81	0 3.62 81	0 3.62 81	0 3.62 81	272 126
35/13W-29G 3 S 10-23-63	68	7.8	1180	98 4.89 41	30 2.47 21	102 4.43 37	5 0.13 1	5 0.13 1	0 3.25 27	0 3.25 27	0 3.25 27	0 3.25 27	0 3.25 27	0 3.25 27	0 3.25 27	0 3.25 27	0 3.25 27	0 3.25 27	0 3.25 27	740 368
10-31-63	69	7.9	1320	137 6.84 49	31 2.55 18	103 4.48 32	5 0.13 1	5 0.13 1	0 5.16 38	0 5.16 38	0 5.16 38	0 5.16 38	0 5.16 38	0 5.16 38	0 5.16 38	0 5.16 38	0 5.16 38	0 5.16 38	0 5.16 38	828 470
3-10-64	--	7.8	1270	141 7.04 50	29 2.38 17	102 4.43 32	5 0.13 1	5 0.13 1	0 5.15 37	0 5.15 37	0 5.15 37	0 5.15 37	0 5.15 37	0 5.15 37	0 5.15 37	0 5.15 37	0 5.15 37	0 5.15 37	0 5.15 37	781
3-10-64	--	7.9	1386	143 7.14 51	30 2.47 18	97 4.22 30	5 0.13 1	5 0.13 1	0 5.24 38	0 5.24 38	0 5.24 38	0 5.24 38	0 5.24 38	0 5.24 38	0 5.24 38	0 5.24 38	0 5.24 38	0 5.24 38	0 5.24 38	852 481
4- 7-64	71	7.6	1300	137 6.84 49	32 2.63 19	99 4.30 31	5 0.13 1	5 0.13 1	0 5.33 38	0 5.33 38	0 5.33 38	0 5.33 38	0 5.33 38	0 5.33 38	0 5.33 38	0 5.33 38	0 5.33 38	0 5.33 38	0 5.33 38	770
35/13W-31M 1 S 10-24-63	70	8.1	510	47 2.35 44	11 0.90 17	45 1.96 37	3 0.08 2	3 0.08 2	0 3.70 71	0 3.70 71	0 3.70 71	0 3.70 71	0 3.70 71	0 3.70 71	0 3.70 71	0 3.70 71	0 3.70 71	0 3.70 71	0 3.70 71	789
4- 8-64	76	7.9	510	44 2.20 39	17 1.40 25	45 1.96 35	3 0.08 1	3 0.08 1	0 3.80 67	0 3.80 67	0 3.80 67	0 3.80 67	0 3.80 67	0 3.80 67	0 3.80 67	0 3.80 67	0 3.80 67	0 3.80 67	0 3.80 67	322 180

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				million milliequivalents per million				Mineral constituents in parts per million			
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	Total hardness as CaCO ₃	Evap. 180°C	Evap. 105°C	Computed
Date sampled				Co	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂				
L A SAN GABRIEL RIVER HYDRO UNIT U0500																			
COASTAL PL OF LA CO HYDRO SUBUNITU05A0																			
WEST COAST HYDRO SUBAREA U05A2																			
35/13W-32E 2 S 10-30-63	--	8.1	490	50 2.50 49	7 0.58 11	44 1.91 38	3 0.08 2	0	232 3.80 77	27 0.56 11	21 0.59 12	0.0	0.2	0.10	21	272	154		
4- 7-64	71	7.8	500	40 2.00 40	13 1.07 21	44 1.91 38	3 0.08 2	0	233 3.82 74	34 0.71 14	23 0.65 13	0.0	0.2	0.14	17	280	154		
35/13W-33A 3 S 11-12-63	--	8.3	582	60 2.99 48	14 1.15 18	47 2.04 33	3 0.08 1	0	224 3.67 56	77 1.60 25	44 1.24 19	0.0	--	--	--	207			
4- 6-64	--	8.0	672	71 3.54 53	16 1.32 20	40 1.74 26	3 0.08 1	0	242 3.97 64	53 1.10 18	42 1.18 19	0.0	--	--	--	355			243
35/14W- 3K 1 S 10-28-63	73	8.0	525	51 2.54 44	11 0.90 16	50 2.17 38	4 0.10 2	0	258 4.23 75	14 0.29 5	40 1.13 20	0.0	0.2	0.18	21	326	172		
4- 1-64	66	8.0	500	42 2.10 36	17 1.40 24	50 2.17 38	4 0.10 2	0	263 4.31 76	9 0.19 3	41 1.16 20	0.0	0.1	0.15	24	310	175		
35/14W- 7K 5 S 9- 3-64	76	7.8	940	39 1.95 19	26 2.14 20	142 6.17 59	10 0.26 2	0	464 7.60 74	19 0.40 4	82 2.31 22	0.0	0.1	0.43	--	564	205		
35/14W-130 5 S 10-25-63	68	8.0	1910	124 6.19 32	67 5.51 28	178 7.74 40	3 0.08 0	0	347 5.69 30	126 2.62 14	337 9.50 49	87.0 1.40 7	0.1	0.22	18	1242	585		1111

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent reactance value				Mineral constituents in parts per million					
				Calcium Mg	Magne- sium Mg	Sodium No	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fluo- ride F	Boron B	Sili- ca SiO ₂	Total I.D.S. Exp-180°C Exp-105°C Computer CaCO ₃	
3S/14W-22K 1 S 4- 6-64	71	7.8	530	46	13	48	4	0	244	37	34	0.0	0.4	0.09	27	310	169
				2.30	1.07	2.09	0.10	4	4.00	0.77	0.96	0.0	0.0	0.0	0.0	0.09	27
3S/14W-22L 1 S 10-28-63	71	8.0	525	51	13	48	4	0	239	43	32	0.0	0.4	0.10	21	346	181
				2.54	1.07	2.09	0.10	4	3.92	0.90	0.90	0.0	0.0	0.0	0.0	0.10	21
4- 1-64	63	8.3	550	42	19	50	4	4	243	43	35	0.0	0.2	0.14	26	332	183
				2.10	1.56	2.17	0.10	4	3.98	0.90	0.99	0.0	0.0	0.0	0.0	0.14	26
3S/14W-22R 2 S 10-28-63	69	7.6	1400	111	56	107	6	0	233	47	340	0.0	0.2	0.35	16	1044	508
				5.54	4.61	4.65	0.15	6	4.15	0.98	9.59	0.0	0.0	0.0	0.0	0.35	16
3-10-64	--	8.0	626	54	15	44	3	0	156	29	101	0.0	0.2	0.17	--	363	196
				2.69	1.23	1.91	0.08	3	2.56	0.60	2.85	0.0	0.0	0.0	0.0	0.17	--
3-10-64	--	7.9	575	54	13	47	3	0	155	21	100	0.0	0.2	0.13	13	346	188
				2.69	1.07	2.04	0.08	3	2.54	0.44	2.82	0.0	0.0	0.0	0.0	0.13	13
4- 6-64	61	7.9	620	35	28	53	4	0	244	38	64	0.0	0.2	0.15	22	376	203
				1.75	2.30	2.30	0.10	4	4.00	0.79	1.80	0.0	0.0	0.0	0.0	0.15	22
3S/14W-25K 4 S 10-25-63	70	7.8	710	70	17	53	3	0	226	59	81	0.0	0.2	0.14	22	434	245
				3.49	1.40	2.30	0.08	3	3.70	1.23	2.28	0.0	0.0	0.0	0.0	0.14	22
				48	19	32	1		51	17	32				416		

COASTAL PL OF LA CO HYDRO SUBUNIT U05A0
WEST COAST HYDRO SUBAREA U05A2
L A SAN GABRIEL RIVER HYDRO UNIT U0500

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million reactance value				Mineral constituents in parts per million					
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fuo- ride F	Boron B	Sul- co S+O ₂	I.D.S. Evap 180°C Evap 105°C as Computed CaCO ₃	Total hardness as CaCO ₃
L A SAN GABRIEL RIVER HYDRO UNIT U0500																	
COASTAL PL OF LA CO HYDRO SUBUNITU05A0																	
WEST COAST HYDRO SUBAREA U05A2																	
3S/14W-25K 4 S 4- 3-64	64	7.8	700	79 3.94 55	11 0.90 12	53 2.30 32	3 0.08 1	0	234 3.84 52	54 1.12 15	85 2.40 33	0.0	0.2	0.12	22	438 422	242
3S/14W-27C 1 S 10-28-63	68	7.7	1040	96 4.79 44	27 2.22 20	86 3.74 34	5 0.13 1	0	221 3.62 34	56 1.17 11	208 5.87 55	0.0	0.2	0.18	19	738 606	351
4- 2-64	64	8.1	1040	89 4.44 40	33 2.71 25	86 3.74 34	5 0.13 1	0	225 3.69 33	59 1.23 11	216 6.09 55	0.8 0.01	0.1	0.15	21	704 621	358
3S/14W-29D 3 S 4- 1-64	72	7.9	700	35 1.75 24	23 1.89 26	80 3.48 48	6 0.15 2	0	329 5.39 74	8 0.17 2	62 1.75 24	0.0	0.2	0.24	23	398 399	182
3S/14W-30D 2 S 2- 3-64	--	7.8	2430	129 6.44 27	49 4.03 17	300 13.04 55	7 0.18 1	0	164 2.69 11	327 6.81 29	508 14.33 60	0.0	--	--	--	1401	524
5-27-64	--	8.4	2280	125 6.24 27	46 3.78 16	300 13.04 56	8 0.20 1	0	157 2.57 11	316 6.58 29	488 13.76 60	0.0	--	--	--	1360	501
3S/14W-30E 1 S 10-28-63	--	8.0	876	56 2.79 36	14 1.15 15	85 3.70 48	4 0.10 1	0	136 2.23 30	63 1.31 18	138 3.89 52	0.0	--	--	--	427	197
5- 5-64	--	8.4	880	61 3.04 35	15 1.23 14	98 4.26 49	5 0.13 2	0	128 2.10 24	70 1.46 17	140 3.95 46	70.0 1.13 13	--	--	--	522	214

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million reactance value				Mineral constituents in parts per million			
				Calcium Mg	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂
35/14W-30F 2 S 2-3-64	--	7.7	1090	55	14	156	3	0	168	160	162	6.0	--	--	195
				2.74	1.15	6.78	0.08	2.75	3.33	4.57	0.10	--	--	639	
35/14W-30G 1 S 4-1-64	--	7.5	2395	241	75	130	10	0	223	93	668	2.0	0.3	0.10	29
				12.03	6.17	5.65	0.26	3.65	1.94	18.84	0.03	--	--	1672	
35/14W-30H 2 S 10-23-63	72	8.4	1040	74	33	90	6	15	202	38	201	0.0	0.2	0.20	22
				3.69	2.71	3.91	0.15	3.31	0.79	5.67	5.79	0.0	0.0	658	
4-7-64	71	7.5	1100	35	26	37	1	5	32	8	55	0.0	0.2	0.18	22
				9.7	2.7	9.1	7	0	238	45	229	0.0	0.0	700	
35/14W-30M 2 S 2-19-64	--	7.7	1940	4.84	2.22	3.96	0.18	3.90	0.94	6.46	6.46	0.16	--	--	635
				3.44	1.64	13.74	0.13	2.62	6.64	9.48	50	1	--	254	
9-11-64	--	8.4	1510	18	9	73	1	14	35	36	336	10.0	--	--	1154
				62	17	235	6	0	164	273	220	17.0	--	225	
35/14W-30M 3 S 10-14-63	--	7.5	1300	3.09	1.40	10.22	0.15	2.69	5.68	6.20	6.20	0.27	--	--	911
				21	9	69	1	18	38	42	2	32.0	--	361	
4-28-64	--	8.2	1360	4.74	2.47	6.22	--	2.59	5.37	4.96	4.96	0.52	--	--	812
				35	18	46	6	19	40	37	4	34.0	--	389	
4-28-64	--	8.2	1360	1.08	2.9	142	6	0	160	249	208	34.0	--	--	855
				5.39	2.38	6.17	0.15	2.62	5.18	5.87	4.1	0.55	--	855	

COASTAL PL OF LA CO HYDRO SUBUNITU05A0
WEST COAST HYDRO SUBAREA U05A2
L A SAN GABRIEL RIVER HYDRO UNIT U0500

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				Mineral constituents in parts per million			
				Calcium Co	Magne- sium Mg	Sodium No	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fluo- ride F	Boron B	Sil- ica SiO ₂
3S/14W-30N 1 S 10-14-63	--	8.1	1230	5	2	259	--	0	152	299	106	0.0	--	--	21
				0.25	0.16	11.26		2.49	6.23	2.99					
4-23-64	--	8.3	1230	7	3	260	2	0	152	273	107	0.0	--	--	30
				0.35	0.25	11.30	0.05	2.49	5.68	3.02					
3S/14W-31A 4 S 1-7-64	--	7.9	2284	194	56	180	7	0	232	108	560	0.0	--	--	715
				9.68	4.61	7.83	0.18	3.80	2.25	15.79					
4-17-64	--	8.1	2290	43	21	35	1	0	17	10	72	0.0	--	--	759
				10.48	4.69	8.09	0.26	3.75	2.75	16.30					
3S/14W-31D 1 S 4-21-64	--	8.1	2080	20	12	420	4	0	168	338	380	0.0	--	--	100
				1.00	0.99	18.26	0.10	2.75	7.04	10.72					
9-3-64	--	8.2	1920	13	9	396	4	0	165	337	298	0.0	--	--	70
				0.65	0.74	17.22	0.10	2.70	7.02	8.40					
3S/14W-31L 2 S 12-20-63	--	8.1	9500	27.94	31.0	1420	19	0	220	479	3600	0.0	--	--	2674
				24	25.49	61.74	0.49	3.61	9.97	101.52					
5-20-64	--	8.4	9300	496	290	1510	20	0	246	390	3640	0.0	--	--	2432
				24.75	23.85	65.65	0.51	4.03	8.12	102.65					
				22	21	57		4	7		89				6467

COASTAL PL OF LA CO HYDRO SUBUNITU05A0

WEST COAST HYDRO SUBAREA

L A SAN GABRIEL RIVER HYDRO UNIT U0500

U05A2

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent				parts per million reoactance value				Mineral constituents in parts per million				
				Calcium Mg	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fluo- ride F	Boron B	Sili- co SiO ₂	I.O.S. Exp. 180°C	Total hardness as CaCO ₃	Fluo- ride F	Boron B	Sili- co SiO ₂
35/14W-33L 1 S 10-31-63	68	8.2	600	52	14	52	3	0	227	4	83	0	0.2	0.17	25	340	187			
				2.59 43	1.15 19	2.26 37	0.08 1		3.72 61	0.08 1	2.34 38							345		
35/15W-3H 2 S 3-25-64	--	8.5	1180	35	19	233	10	--	734	4	62		--	--	--	724	166			
				1.75 13	1.56 11	10.13 74	0.26 2		12.03 87	0.08 1	1.75 13									
35/15W-11M 5 S 2-26-64	--	7.9	13600	287	292	2440	11	0	250	762	4460		--	--	--	1918				
				14.32 10	24.01 17	106.09 73	0.28		4.10 3	15.86 11	125.77 86									
35/15W-11M 7 S 2-26-64	--	8.0	14500	356	289	2640	13	0	253	793	4810		--	--	--	8375				
				17.76 11	23.77 15	114.79 73	0.33		4.15 3	16.51 11	135.64 87									
35/15W-12H 2 S 4-2-64	71	7.8	2100	111	96	185	8	0	299	26	573		0.2	0.32	14	1570	673			
				5.54 26	7.90 36	8.04 37	0.20 1		4.90 23	0.54 3	16.16 75									
8-3-64	72	8.3	1320	86	40	122	7	0	378	45	206		--	--	--	379				
				4.29 33	3.29 25	5.30 41	0.18 1		6.20 48	0.94 7	5.81 45									
35/15W-12H 3 S 10-2-63	--	8.3	1320	99	37	124	8	0	388	48	225		--	--	--	399				
				4.94 36	3.04 22	5.39 40	0.20 1		6.36 46	1.00 7	6.35 46									
10-23-63	72	8.2	1220	90	39	130	8	0	375	45	220		0.2	0.30	24	750	385			
				4.49 33	3.21 24	5.65 42	0.20 1		6.15 46	0.94 7	6.20 47									

COASTAL PL OF LA CO HYDRO SUBUNIT U05A0 U05A2
WEST COAST HYDRO SUBAREA

L A SAN GABRIEL RIVER HYDRO UNIT U0500

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million reactance value				Mineral constituents in parts per million			
				Calcium Mq	Magnesium Mq	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂
COASTAL PL OF LA CO HYDRO SUBUNIT U05A0															
WEST COAST HYDRO SUBAREA U05A2															
3S/15W-12H 3 S 11-18-63	--	7.8	1320	94 4.69 35	38 3.13 23	124 5.39 40	7 0.18 1	0	384 6.29 46	55 1.15 8	216 6.09 45	0.0	--	--	391
12-10-63	72	8.0	1291	90 4.49 33	37 3.04 22	126 5.48 40	31 0.79 6	--	368 6.03 45	56 1.17 9	216 6.09 46	0.0	--	--	377
1- 6-64	72	8.1	1300	92 4.59 36	36 2.96 23	120 5.22 40	5 0.13 1	0	364 5.97 46	46 0.96 7	212 5.98 46	0.0	--	--	378
2- 3-64	72	8.4	1280	93 4.64 36	37 3.04 23	120 5.22 40	6 0.15 1	0	356 5.83 45	49 1.02 8	216 6.09 46	10.0 0.16 1	--	--	384
3- 3-64	72	8.1	1280	93 4.64 36	36 2.96 23	124 5.39 41	--	0	380 6.23 48	47 0.98 8	204 5.75 44	5.0 0.08 1	--	--	380
3-10-64	--	8.4	870	46 2.30 26	24 1.97 22	105 4.57 51	6 0.15 2	7 0.23 3	130 2.13 24	144 3.00 34	121 3.41 39	0.4 0.01	0.2	0.21	214
3-10-64	--	8.5	923	46 2.30 26	25 2.06 23	101 4.39 49	6 0.15 2	7 0.23 3	129 2.11 24	144 3.00 34	121 3.41 39	1.0 0.02	0.4	0.23	218
4- 2-64	71	7.6	1400	76 3.79 25	60 4.93 33	142 6.17 41	8 0.20 1	0	394 6.46 43	51 1.06 7	272 7.67 50	0.0	0.2	0.32	436

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Date sampled	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million reactance value				Mineral constituents in parts per million			
					Calcium M g	Magne- sium M g	Sodium No	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Flo- ride F	Bleed- ing B	Sulf- ate SO ₂
L A SAN GABRIEL RIVER HYDRO UNIT U0500																
COASTAL PL OF LA CO HYDRO SUBUNITU05A0																
WEST COAST HYDRO SUBAREA U05A2																
35/15W-12H 3 S 4- 9-64		73	8.4	1240	83 4.14 32	37 3.04 23	128 5.57 43	12 0.31 2	8 0.27 2	348 5.70 44	47 0.98 7	216 6.09 47	2.2 0.04	--	--	359
5- 4-64		72	7.8	1280	--	--	--	--	0	387 6.34	--	208 5.87	--	--	--	386
6- 9-64		72	7.9	1300	97 4.84	33 2.71	--	--	0	383 6.28	46 0.96	214 6.03	--	--	--	378
7- 6-64		72	8.6	1290	74 3.69 30	38 3.13 26	117 5.09 42	8 0.20 2	0	325 5.33 44	46 0.96 8	208 5.87 48	5.2 0.08 1	--	--	341
9- 1-64		73	8.4	1250	79 3.94	38 3.13	--	--	0	361 5.92	--	210 5.92	--	--	--	354
35/15W-13P 1 S 10- 2-63		--	8.3	2250	198 9.88 42	55 4.52 19	200 8.70 37	6 0.15 1	0	306 5.02 23	44 0.92 4	566 15.96 73	0.0	--	--	721
3-20-64		--	7.8	2200	198 9.88 45	57 4.69 21	166 7.22 33	4 0.10	0	293 4.80 23	4 0.08 77	564 15.90 77	0.0	--	--	729
35/15W-13R 2 S 9- 2-64		--	8.5	2200	204 10.18 44	76 6.25 27	146 6.35 27	13 0.33 1	0	310 5.08 22	228 4.75 21	460 12.97 57	7.2 0.12 1	--	--	822

TABLE E-1

 MINERAL ANALYSES OF GROUND WATER 1963/64
 LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million reactance value				Mineral constituents in parts per million					
				Calcium Mg	Magnesium Na	Sodium K	Palates CO ₃	Carbonate HCO ₃	Bicarbonate SO ₄	Sulfate Cl	Chloride NO ₃	Fluoride F	Barium B	Silica SiO ₂	I.D.S. Evap 180°C Evap 105°C Computed CaCO ₃	Total hardness as CaCO ₃	
L A SAN GABRIEL RIVER HYDRO UNIT U0500																	
COASTAL PL OF LA CO HYDRO SUBUNITU05A0																	
WEST COAST HYDRO SUBAREA U05A2																	
3S/15W-13R 6 S 7- 6-64	74	7.7	1100	80 3.99 33	37 3.04 25	113 4.91 41	0.18 1	7	0	360 5.90 49	8 0.17 1	209 5.89 49	0.0	0.2	0.18	630 631	352 268
3S/15W-14J 1 S 10- 1-63	--	8.0	848	71 3.54 43	22 1.81 22	63 2.74 33	5 0.13 2	3	0	392 6.42 71	0 2.65 29	94 2.65 29	0.0	--	--	448	263
3-18-64	--	8.1	852	66 3.29 37	24 1.97 22	82 3.57 40	3 0.08 1	3	0	384 6.29 70	0 2.65 30	94 2.65 30	0.0	--	--	458	304
3S/15W-24M 1 S 10- 9-63	--	8.0	1740	74 3.69 22	29 2.38 14	243 10.57 64	--	0	170 2.79 17	196 4.08 25	328 9.25 56	28.0 0.45 3	0.0	--	--	982	239
2-20-64	--	7.3	1450	61 3.04 22	21 1.73 12	210 9.13 65	2 0.05	0	130 2.13 15	220 4.58 33	236 6.66 48	32.0 0.52 4	0.0	--	--	846	167
9- 2-64	--	8.5	1080	42 2.10 21	15 1.23 12	156 6.78 67	3 0.08 1	0	166 2.72 27	107 2.23 22	156 4.40 44	37.0 0.60 6	0.0	--	--	598	7
3S/15W-24N 1 S 10- 7-63	--	8.5	1240	0.05	0.08	12.17	0.23	0	156	278	106	0.0	--	--	--	752	
4- 8-64	--	8.3	1250	0	0	11.52	0.10	0	265	304	104	0.0	--	--	--	752	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent reactance value				Mineral constituents in parts per million					
				Calcium Ca	Magne- sium Mg	Sodium Na	Potass- ium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Flo- ride F	Boron B	Sili- ca SiO ₂	TDS Extrapolated as CaCO ₃	Total Dissolved Solids as CaCO ₃
COASTAL PL OF LA CO HYDRO SUBUNIT U05A0																	
WEST COAST HYDRO SUBAREA U05A2																	
3S/15W-24N 1 S 8-27-64	--	8.5	1280	0	4 0.33	270 11.74	10 0.26	0	0	159 2.61	335 6.97	120 3.38	0.0	--	--	817	17
3S/15W-24P 1 S 1- 8-64	--	7.6	10449	72 3.59	218 17.93	2350 102.18	49 1.25	0	0	144 2.36	683 14.22	3840 108.29	0.0	--	--	1077	809
3-19-64	--	8.1	7550	62 3.09	159 13.08	1690 73.48	30 0.77	0	0	140 2.29	624 12.99	2680 75.58	0.0	--	--	7283	797
7-13-64	--	8.1	9010	54 2.69	161 13.24	1740 75.66	48 1.23	0	0	146 2.39	640 13.32	2730 76.99	0.0	--	--	5314	409
3S/15W-24P 2 S 4-10-64	--	7.8	1400	111 5.54	32 2.63	145 6.30	3 0.08	0	0	192 3.15	228 4.75	216 6.09	38.5 0.62	--	--	868	390
9-25-64	--	8.2	1370	105 5.24	31 2.55	139 6.04	5 0.13	0	0	198 3.25	256 4.71	188 5.30	40.5 0.65	--	--	832	170
3S/15W-25A 3 S 10- 3-63	--	8.3	1320	50 2.50	11 0.90	235 10.22	5 0.13	0	0	170 2.79	280 5.83	160 4.51	0.0	--	--	825	171
4-13-64	--	8.0	1260	47 2.35	13 1.07	210 9.13	4 0.10	0	0	161 2.64	280 5.83	148 4.17	1.0 0.02	--	--	782	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents percent				Mineral constituents in parts per million			
				Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂
COASTAL PL OF LA CO HYDRO SUBUNIT U05A0 WEST COAST HYDRO SUBAREA U05A2															
3S/15W-25B 1 S 1- 9-64	--	7.7	1349	58 2.89 17	26 2.14 13	266 11.57 69	3 0.08	0	168 2.75	278 5.79 34	272 7.67 45	--	--	--	252
4-20-64	--	8.2	1695	62 3.09 18	25 2.06 12	265 11.52 69	4 0.10 1	0	167 2.74 16	293 6.10 35	276 7.78 45	--	--	1026	258
9-10-64	--	8.6	1630	60 2.99 19	25 2.06 13	245 10.65 67	3 0.08 1	0	162 2.66 17	271 5.64 35	244 6.88 43	--	--	1049	253
3S/15W-25B 2 S 11- 1-63	--	7.9	1815	15 0.75 4	9 0.74 4	360 15.65 88	23 0.59 3	0	166 2.72 16	344 7.16 41	268 7.56 43	--	--	972	75
9-10-64	--	8.4	1610	11 0.55 3	6 0.49 3	352 15.30 93	5 0.13 1	0	170 2.79 17	328 6.83 42	240 6.77 41	--	--	1104	52
3S/15W-25B 3 S 10-24-63	--	8.1	1240	7 0.35 3	6 0.49 4	235 10.22 91	8 0.20 2	0	154 2.52 21	321 6.68 55	104 2.93 24	--	--	1026	42
4-24-64	--	8.2	1160	8 0.40 4	11 0.90 8	225 9.78 87	8 0.20 2	0	147 2.41 21	298 6.20 54	104 2.93 25	--	--	757	65
3S/15W-25C 3 S 4- 6-64	--	8.1	1200	49 2.45 20	24 1.97 16	174 7.57 63	4 0.10 1	0	138 2.26 19	294 6.12 50	128 3.61 30	--	--	726	221
														752	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent reactance value				Mineral constituents in parts per million			
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂
3S/15W-25C 4 S 3-27-64	--	7.6	3730	9	21	760	9	0	151	415	882	0.0	--	--	109
				0.45	1.73	33.04	0.23	0	2.47	8.64	24.87	2.47	7	24	69
9- 4-64	--	8.3	4140	0	34	852	19	0	150	421	990	4.0	--	--	140
				0	2.80	37.04	0.49	0	2.46	8.77	27.92	6	22	71	0.06
3S/15W-25C 5 S 10-17-63	--	8.0	2390	22	31	442	--	0	152	326	474	12.0	--	--	183
				1.10	2.55	19.22	--	2.49	6.79	13.37	0.19	11	30	59	0.19
3S/15W-25D 2 S 2-18-64	--	7.7	33200	304	897	8100	178	0	146	2190	14100	0.0	--	--	4451
				15.17	73.77	352.19	4.55	2.39	45.60	397.62	1	1	10	89	0.0
3S/15W-25F 1 S 10- 4-63	--	8.2	1410	19	11	266	3	0	156	288	171	0.0	--	--	93
				0.95	0.90	11.57	0.08	2.56	6.00	4.82	4.82	19	45	36	0.0
4- 7-64	--	8.0	1320	15	10	260	4	0	147	315	144	0.0	--	--	79
				0.75	0.82	11.30	0.10	2.41	6.56	4.06	4.06	18	50	31	0.0
9-14-64	--	8.2	1240	19	12	235	3	0	148	313	110	0.0	--	--	97
				0.95	0.99	10.22	0.08	2.43	6.52	3.10	3.10	20	54	26	0.0
3S/15W-25F 4 S 10-31-63	--	7.6	1170	6	10	225	10	0	148	303	100	0.0	--	--	56
				0.30	0.82	9.78	0.26	2.43	6.31	2.82	2.82	21	55	24	0.0

COASTAL PL OF LA CO HYDRO SUBUNIT U05A0
WEST COAST HYDRO SUBAREA U05A2
L A SAN GABRIEL RIVER HYDRO UNIT U0500

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per percent reactance value					Mineral constituents in parts per million				
				Calcium Mg	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total hardness CaCO ₃		
L A SAN GABRIEL RIVER HYDRO UNIT U0500																		
COASTAL PL OF LA CO HYDRO SUBUNITU05A0																		
WEST COAST HYDRO SUBAREA U05A2																		
3S/15W-25F 4 S 5- 5-64	--	8.1	1220	7 0.35	8 0.66	240 10.44	9 0.23	0	148 2.43	311 6.48	105 2.96	4.8 0.08	--	--	51			
3S/15W-25G 3 S 4- 9-64	--	7.6	1210	12 0.60	30 2.47	206 8.96	5 0.13	0	134 2.20	331 6.89	111 3.13	0.0	--	--	154			
3S/15W-25G 6 S 10-29-63	--	7.5	1180	57 2.84	20 1.64	168 7.30	4 0.10	0	140 2.29	330 6.87	100 2.82	0.0	--	--	224			
4-27-64	--	8.1	1100	50 2.50	19 1.56	169 7.35	4 0.10	0	126 2.07	303 6.31	100 2.82	0.0	--	--	203			
3S/15W-25G 8 S 10-29-63	--	8.3	1180	2 0.10	2 0.16	240 10.44	8 0.20	0	158 2.59	292 6.08	96 2.71	0.0	--	--	13			
4-22-64	--	8.2	1180	2 0.10	2 0.16	258 11.22	8 0.20	0	158 2.59	291 6.06	100 2.82	0.0	--	--	13			
3S/15W-25G 9 S 10-31-63	--	8.3	1210	2 0.10	3 0.25	245 10.65	2 0.05	0	160 2.62	302 6.29	100 2.82	0.0	--	--	18			
4-27-64	--	8.3	1220	0 0.41	5 0.41	257 11.17	2 0.05	0	156 2.56	299 6.23	104 2.93	5.0 0.08	--	--	21			

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million										Mineral constituents in parts per million				
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carben- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fluo- ride F	Boron B	Silic- ic SiO ₂	Total Hardness as CaCO ₃		
L A SAN GABRIEL RIVER HYDRO UNIT U0500																		
COASTAL PL OF LA CO HYDRO SUBUNITU05A0																		
WEST COAST HYDRO SUBAREA U05A2																		
3S/15W-25G10 S 4- 9-64	--	--	1160	22 1.10	22 1.81	200 8.70	4 0.10	0	144 2.36	309 6.43	108 3.05	0.0	--	--	146			
9- 4-64	--	8.2	1160	26 1.30	22 1.81	194 8.44	5 0.13	0	143 2.34	305 6.35	980 27.64	1.0 0.02	--	--	156			
3S/15W-25H 3 S 10-21-63	--	8.0	1430	117 5.84	27 2.22	95 4.13	--	0	166 2.72	221 4.60	231 6.51	20.0 0.32	--	--	403			
4-28-64	--	8.2	1420	48 2.41	18 1.5	34 4.3	5 0.13	0	159 2.61	213 4.43	245 6.91	41.0 0.66	--	--	411			
3S/15W-25K 3 S 10-28-63	--	7.8	1200	20 1.00	8 0.66	230 10.00	4 0.10	0	152 2.49	311 6.48	106 2.99	0.0	--	--	83			
5- 4-64	--	8.2	1190	17 0.85	9 0.74	225 9.78	3 0.08	0	144 2.36	309 6.43	106 2.99	3.3 0.05	--	--	80			
3S/15W-25K 7 S 10-24-63	--	7.9	1210	22 1.10	14 1.15	215 9.35	4 0.10	0	154 2.52	314 6.54	104 2.93	0.0	--	--	113			
5- 4-64	--	8.3	1200	15 0.75	16 1.32	220 9.57	5 0.13	0	148 2.43	312 6.50	104 2.93	0.0	--	--	104			
				6	11	81	1		20	55	25				745			

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				Mineral constituents in million equivalents per million reactance value				Mineral constituents in parts per million						
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Barium	Silica	Total hardness as CaCO ₃		
Date sampled				Ca	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂	Evap 100°C as CaCO ₃	Evap 105°C as CaCO ₃	
L A SAN GABRIEL RIVER HYDRO UNIT U0500																		
COASTAL PL OF LA CO HYDRO SUBUNITU05A0																		
WEST COAST HYDRO SUBAREA U05A2																		
3S/15W-25K14 S 1-8-64	--	7.6	1422	0.10	0.74	10.87	0.10	4	0	2.43	300	4.0	--	--	--	762	42	
3S/15W-25L 1 S 10-21-63	--	7.9	3800	0.25	0.74	36.22	0.54	21	0	3.34	565	0.0	--	--	--	2290	50	
4-22-64	--	8.4	3550	0.20	0.66	33.04	0.96	2	0	3.21	714	0.10	--	--	--	2175	43	
3S/15W-25L 2 S 10-16-63	--	8.7	1200	0.50	0.41	10.70	0.92	--	0	3.08	112	0.0	--	--	--	725	46	
2-21-64	--	7.7	1200	0.30	0.16	10.87	0.18	7	0	2.72	293	0.0	--	--	--	740	23	
9-15-64	--	8.8	1320	0.80	0.66	11.09	0.31	12	0	4.05	212	0.0	--	--	--	749	73	
3S/15W-25P 1 S 2-24-64	--	7.7	3720	2.10	5.35	27.31	0.66	26	0	2.98	848	22.0	--	--	--	2114	373	
				6	15	77	2	8	23	8	67	1						

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent reactivity value				Mineral constituents in parts per million				
				Calcium Co	Magne-sium Mg	Sodium No	Potas-sium K	Carbon-ate CO ₃	Bicar-bonate HCO ₃	Sulfate SO ₄	Chlo-ride Cl	Ni-trate NO ₃	Fluo-ride F	Boron B	Sil-ica SiO ₂	I.D.S. Evap. Res. Computed
3S/15W-25Q 2 S 1-31-64	--	7.6	1070	78 3.89 34	31 2.55 22	112 4.87 43	3 0.08 1	0	144 2.36 21	289 6.02 53	100 2.82 25	4.0 0.06 1	--	--	--	322
2- 6-64	57	7.5	1030	82 4.09 37	29 2.38 22	102 4.43 40	3 0.08 1	0	140 2.29 21	286 5.95 54	96 2.71 25	0.0 0.0 0.0	--	--	--	324
2-25-64	--	7.9	1050	80 3.99 36	30 2.47 22	108 4.70 42	--	0	131 2.15 19	298 6.20 56	100 2.82 25	0.0 0.0 0.0	--	--	--	323
2-25-64	--	8.0	1050	81 4.04 37	27 2.22 21	104 4.52 42	--	0	124 2.03 19	293 6.10 57	92 2.59 24	0.0 0.0 0.0	--	--	--	313
2-27-64	--	7.6	1050	84 4.19 38	27 2.22 20	104 4.52 41	--	0	144 2.36 22	291 6.06 56	88 2.48 23	0.0 0.0 0.0	--	--	--	321
2-28-64	--	7.6	1050	83 4.14 38	27 2.22 20	107 4.65 42	--	0	133 2.18 20	292 6.08 55	98 2.76 25	0.0 0.0 0.0	--	--	--	318
3- 2-64	--	7.5	1070	86 4.29 38	28 2.30 20	107 4.65 41	--	0	136 2.23 20	291 6.06 54	104 2.93 26	0.0 0.0 0.0	--	--	--	330
3- 2-64	--	7.6	1090	85 4.24 37	29 2.38 21	108 4.70 42	--	0	126 2.07 18	296 6.16 54	110 3.10 27	0.0 0.0 0.0	--	--	--	331

COASTAL PL OF LA CO HYDRO SUBUNITU05A0 U05A2
WEST COAST HYDRO SUBAREA U05A2
L A SAN GABRIEL RIVER HYDRO UNIT U0500

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million						parts per million equivalents per million percent reactance value					Mineral constituents in parts per million			
				Calcium M g	Magne- sium M g	Sodium No	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fluo- ride F	Baron B	Sili- co SiO ₂	I.D.S. Evap 105°C	Total Hardness as CaCO ₃	
L A SAN GABRIEL RIVER HYDRO UNIT U0500																		
COASTAL PL OF LA CO HYDRO SUBUNIT U05A0																		
WEST COAST HYDRO SUBAREA U05A2																		
3S/15W-25Q 2 S 3- 5-64	--	7.9	1360	78 3.89 36	26 2.14 20	108 4.70 43	3 0.08	0	0	132 2.16 19	295 6.14 55	100 2.82	0.0	--	--	302		
3S/15W-25Q 3 S 2-18-64	--	7.6	33700	374 18.66 4	960 78.95 17	8400 365.23 78	140 3.58 1	0	0	170 2.79 1	2230 46.43 10	14900 420.18 90	2.0 0.03	--	--	4884		
3S/15W-25Q 4 S 2- 6-64	57	7.9	1106	82 4.09 35	29 2.38 20	118 5.13 44	3 0.08 1	0	0	136 2.23 19	284 5.91 50	128 3.61 31	0.0	--	--	324		
3S/15W-25R 1 S 4- 8-64	--	8.3	1200	13 0.65 6	13 1.07 9	230 10.00 85	3 0.08 1	0	0	149 2.44 21	312 6.50 55	104 2.93 25	0.0	--	--	86		
3S/15W-25R 2 S 2- 4-64	--	7.9	3030	13 0.65 2	15 1.23 4	614 26.70 93	7 0.18 1	0	0	160 2.62 9	395 8.22 28	640 18.05 62	0.0	--	--	94		
2-74-64	--	7.7	3720	42 2.10 6	65 5.35 15	628 27.31 77	26 0.66 2	0	0	182 2.98 8	394 8.20 23	848 23.91 67	22.0 0.35 1	--	--	373		
3S/15W-25R 4 S 4-23-64	--	8.2	1080	40 2.00 18	20 1.64 15	166 7.22 65	7 0.18 2	0	0	137 2.25 20	291 6.06 55	96 2.71 25	0.0	--	--	182		
3S/15W-36A 2 S 4-21-64	--	8.4	1130	92 4.59 37	20 1.64 13	138 6.00 48	6 0.15 1	0	0	180 2.95 24	239 4.98 41	146 4.12 34	0.0	--	--	312		

TABLE E-1
 MINERAL ANALYSES OF GROUND WATER 1963/64
 LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million reductance value				Mineral constituents in parts per million					
				Calcium Mg	Magne- sium Mg	Sodium Na	Potass- ium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fluo- ride F	Boron B	Sili- ca SiO ₂	Total Hardness CaCO ₃	
L A SAN GABRIEL RIVER HYDRO UNIT U0500																	
COASTAL PL OF LA CO HYDRO SUBUNITU05A0																	
WEST COAST HYDRO SUBAREA U05A2																	
3S/15W-36A 3 S 2- 7-64	--	7.6	1041	85 4.24 39	28 2.30 21	98 4.26 39	3 0.08 1	0	140 2.29 21	296 6.16 56	92 2.59 23	0.0	--	--	327		
2- 7-64	--	7.1	1076	85 4.24 39	28 2.30 21	98 4.26 39	3 0.08 1	0	96 1.57 14	292 6.08 55	120 3.38 30	4.0 0.06 1	--	--	327		
6-23-64	--	8.1	1220	84 4.19 33	28 2.30 18	136 5.91 47	5 0.13 1	0	134 2.20 18	313 6.52 52	135 3.81 30	0.0	--	--	325		
6-24-64	--	8.5	1220	84 4.19 33	28 2.30 18	138 6.00 48	5 0.13 1	0	141 2.31 18	314 6.54 52	132 3.72 30	0.0	--	--	325		
6-24-64	--	8.2	1190	80 3.99 33	27 2.22 18	136 5.91 48	5 0.13 1	0	146 2.39 19	306 6.37 52	126 3.55 29	0.0	--	--	311		
6-25-64	--	8.3	1250	80 3.99 31	27 2.22 17	146 6.35 50	5 0.13 1	0	144 2.36 19	308 6.41 50	140 3.95 31	0.0	--	--	311		
7-10-64	--	8.1	2330	67 3.34 15	38 3.13 14	372 16.17 71	8 0.20 1	0	149 2.44 11	321 6.68 30	468 13.20 59	0.0	--	--	324		
3S/15W-36A 4 S 2- 7-64	--	6.7	1040	84 4.19 39	28 2.30 21	98 4.26 39	3 0.08 1	0	128 2.10 19	294 6.12 56	92 2.59 24	4.0 0.06 1	--	--	325		

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp. when sampled (in °F)	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent reactance value				Mineral constituents in parts per million				
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fluo- ride F	Boron B	Sili- ca SiO ₂	I.D.S. Extrac- tation I.D.S. Extrac- tation I.D.S. Extrac- tation
COASTAL PL OF LA CO HYDRO SUBUNIT U05A0																
WEST COAST HYDRO SUBAREA U05A2																
3S/15W-36A 4 S 2- 7-64	--	7.1	1090	81 4.04 35	34 2.80 24	104 4.52 40	3 0.08 1	0 1.84 16	0 6.14 54	295 6.14 54	120 3.38 30	4.0 0.06 1	--	--	--	342
4S/12W-30R 1 S 7-14-64	--	8.5	2980	72 3.59 12	42 3.45 12	510 22.17 75	9 0.23 1	0 8.82 30	0 20.76 70	0 736 0	0.0 20.76 70	0.0	--	--	--	352
4S/12W-31C 1 S 6- 1-64	--	8.5	5510	191 9.53 14	105 8.64 13	1090 47.39 72	23 0.59 1	0 3.82 6	249 5.18 8	2030 57.25 86	0.0 57.25 86	0.0	--	--	--	909
4S/12W-31M 1 S 6- 3-64	--	8.9	3290	1.85 8.75 5	2.63 11.28 7	700 30.44 86	14 0.36 1	47 1.57 32	0 6.88 0	796 22.45 64	0.0 22.45 64	0.0	--	--	--	224
4S/13W- 2P 1 S 4-22-64	--	8.3	1450	159 7.93 49	26 2.14 13	138 6.00 37	5 0.13 1	0 6.29 39	238 4.96 31	168 4.74 30	0.0 4.74 30	0.0	--	--	--	504
4S/13W-10B 2 S 4-22-64	68	8.1	4036	328 16.37 33	102 8.39 17	560 24.35 49	9 0.23 0	0 6.59 13	1520 31.65 63	416 11.73 23	0.0 11.73 23	0.0	--	--	--	1239
4S/13W-10E 3 S 4- 3-64	71	8.0	650	15 3.09 43	15 1.23 17	65 2.83 39	4 0.10 1	0 4.11 58	81 1.69 24	46 1.30 18	0.0 1.30 18	0.0	0.2	0.17	23	216
4S/13W-11D 1 S 8-14-64	--	7.8	1775	173 8.63 41	55 4.52 21	180 7.83 37	6 0.15 1	0 3.59 28	372 7.75 37	255 7.19 35	0.0 7.19 35	0.0	0.2	0.41	--	658

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million							Mineral constituents in parts per million					
				Calcium Mg	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fuo- ride F	Bar- en B	Sil- ico SiO ₂	I.O.S. Exp-180°C Exp-105°C Computed CalcO ₃
L A SAN GABRIEL RIVER HYDRO UNIT U0500																
COASTAL PL OF LA CO HYDRO SUBUNIT U05A0																
WEST COAST HYDRO SUBAREA U05A2																
4S/13W-11K 3 S 4-23-64	--	8.2	2391	230 11.48 46	32 2.63 11	244 10.61 43	7 0.18 1	0	376 6.16 25	282 5.87 23	460 12.97 52	0.0	--	--	1440	706
4S/13W-15B 5 S 4-22-64	77	8.4	360	19 0.95 25	5 0.41 11	55 2.39 63	2 0.05 1	0	189 3.10 82	0	24 0.68 18	0.0	--	--	198	68
4S/13W-15C 1 S 4-14-64	74	7.9	440	31 1.55 34	6 0.49 11	56 2.43 54	2 0.05 1	0	183 3.00 68	31 0.65 15	25 0.71 16	1.3 0.02	0.2	0.08	240 261	102
4S/13W-15Q 5 S 11-13-63	--	8.3	683	57 2.84	19 1.56	60 2.61	3 0.08	232 7.73	90 1.48	70 1.46	0	--	--	--	220	220
4S/13W-19J 6 S 7-15-64	76	7.8	458	30 1.50 31	9 0.74 15	57 2.48 51	4 0.10 2	0	222 3.64 76	18 0.37 8	27 0.76 16	0.0	0.3	0.10	303 255	112
4S/13W-22F 1 S 10-28-63	77	8.1	360	21 1.05 28	3 0.25 7	56 2.43 64	2 0.05 1	0	192 3.15 82	0	23 0.65 17	1.4 0.02	0.1	0.13	200 220	65
4- 7-64	79	7.9	440	24 1.20 28	4 0.33 8	62 2.70 63	2 0.05 1	0	201 3.29 74	21 0.44 10	25 0.71 16	0.0	0.2	0.22	246 257	77
4S/13W-22K 5 S 10-28-63	70	7.8	380	23 1.15 29	3 0.25 6	57 2.48 63	2 0.05 1	0	184 3.02 76	0	33 0.93 24	0.0	0.4	0.20	200 226	70

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				Mineral constituents in parts per million				Mineral constituents in parts per million							
				Calcium Mg	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fluo- ride F	Baron B	Sili- co SiO ₂	Total D.S. Exp. in 100 cc of water Computed CaCO ₃			
L A SAN GABRIEL RIVER HYDRO UNIT U0500																			
COASTAL PL OF LA CO HYDRO SUBUNITU05A0																			
WEST COAST HYDRO SUBAREA U05A2																			
4S/13W-22K 5 S 4- 8-64	76	8.2	345	21 1.05 27	2 0.16 4	60 2.61 67	2 0.05 1	0	3.08 81	0	188 3.05	0	25 0.71 19	0.0	0.2	0.14	19	180 222	61
8- 5-64	73	8.0	365	--	--	63 2.74	2 0.05	--	186 3.05	--	32 0.90	--	32 0.90	--	--	--	--	61	61
4S/13W-22K10 S 7-22-64	--	7.8	4430	224 11.18 24	90 7.40 16	630 27.39 59	12 0.31 1	0	374 6.13 13	0	374 6.13 13	390 8.12 18	1110 31.30 69	0.0	--	--	--	2640	930
4S/13W-23A 2 S 4-13-64	--	--	5150	129 6.44 12	53 4.36 8	950 41.31 79	1 0.03	0	616 10.10 19	0	616 10.10 19	510 10.62 20	1144 32.26 61	0.0	--	--	--	3090	540
4S/13W-23N 3 S 7-16-64	--	8.4	361	15 0.75 21	3 0.25 7	59 2.57 70	3 0.08	0	178 2.92 79	0	178 2.92 79	4 0.08 2	25 0.71 19	0.0	--	--	--	197	50
4S/13W-23N 4 S 4-10-64	--	7.9	5870	413 20.61 31	113 9.29 14	855 37.18 55	2 0.05	0	328 5.38 8	0	328 5.38 8	272 5.66 8	2000 56.40 84	0.0	--	--	--	1496	1496
4S/13W-23N 5 S 6- 5-64	--	7.9	6060	496 24.75 35	205 16.86 24	660 28.70 40	23 0.59 1	0	196 3.21 5	0	196 3.21 5	161 3.35 5	2260 63.73 91	0.0	--	--	--	3816	2082
4S/13W-25F 1 S 4- 8-64	--	8.4	1830	67 3.34 18	43 3.54 19	266 11.57 63	1 0.03	0	394 6.46 35	0	394 6.46 35	133 2.77 15	336 9.48 51	0.0	--	--	--	3901	344

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				Mineral constituents in				parts per million			
				Calcium Mg	Magne- sium Mg	Sodium No	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fluo- ride F	Boron B	Sili- co SiO ₂	I.O.S. Exap.180°C Exap.105°C Computed	Total hardness as CaCO ₃		
COASTAL PL OF LA CO HYDRO SUBUNITU05A0																			
WEST COAST HYDRO SUBAREA																			
L A SAN GABRIEL RIVER HYDRO UNIT U0500																			
U05A2																			
4S/13W-26A 2 S 7-17-64	--	8.5	515	16 0.80 14	5 0.41 7	100 4.35 78	2 0.05 1	234 7.80 87	0	0	55 1.15 13	0	0.0	--	--	--	61		
4S/13W-26A 3 S 6- 7-64	--	8.6	521	33 1.65 29	15 1.23 22	61 2.65 47	3 0.08 1	4 0.13 2	200 3.28 60	2 2	62 1.29 23	28 0.79 14	0.0	--	--	144			
4S/13W-26F 6 S 5-26-64	--	8.4	418	12 0.60 14	4 0.33 8	77 3.35 77	3 0.08 2	0	204 3.34 76	9 0.19 4	9 0.19 4	30 0.85 19	0.0	--	--	47			
4S/13W-26F 7 S 4- 2-64	--	8.2	4230	376 18.76 44	99 8.14 19	350 15.22 36	15 0.38 1	0	270 4.43 10	224 4.66 11	224 4.66 11	1190 33.56 79	0.0	--	--	1346			
4S/13W-26R 1 S 5-27-64	--	8.8	1050	15 0.75 7	10 0.82 8	200 8.70 83	9 0.23 2	20 0.67 6	331 5.43 51	0 4.65 43	0 4.65 43	165 4.65 43	0.0	--	--	79			
4S/13W-26R 3 S 4- 6-64	--	8.4	7750	416 20.76 23	216 17.76 19	1200 52.18 57	34 0.87 1	0	426 6.98 8	40 0.83 1	40 0.83 1	2930 82.63 91	0.0	--	--	1928			
4S/13W-27A 2 S 10- 1-63	75	8.1	3540	250 12.48 36	58 4.77 14	400 17.39 50	12 0.31 1	0	380 6.23 18	253 5.27 15	253 5.27 15	852 24.03 68	0.0	--	--	863			
11- 5-63	70	7.8	3550	258 12.87 37	57 4.69 13	390 16.96 49	10 0.26 1	0	368 6.03 17	252 5.25 15	252 5.25 15	856 24.14 68	0.0	--	--	879			
																	2004		

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				million reactivity value				Mineral constituents in parts per million			
				Calcium Mg	Magne- sium Mg	Sodium Na	Potass- ium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fluor- ide F	Boron B	Sili- ca SiO ₂	Total Hardness as CaCO ₃	I.D.S. Exap. 105°C Computed	Total Hardness as CaCO ₃	
L A SAN GABRIEL RIVER HYDRO UNIT U0500																			
COASTAL PL OF LA CO HYDRO SUBUNITU05A0 U05A2																			
WEST COAST HYDRO SUBAREA																			
45/13W-27A 2 S 12-4-63	70	8.3	3560	298 14.87 40	3.87 11	410 17.83 49	0.18	7	0	360 5.90 16	263 5.48 15	880 24.82 69	0.0	--	--	--	938		
1-6-64	66	7.7	3550	256 12.77 37	63 5.18 15	385 16.74 48	0.20	8	0	344 5.64 16	255 5.31 15	848 23.91 69	0.0	--	--	1984	898		
2-5-64	68	7.6	3550	254 12.67 37	62 5.10 15	375 16.31 48	0.20	8	0	324 5.31 15	285 5.93 17	848 23.91 68	0.0	--	--	1991	889		
3-3-64	68	7.9	3600	254 12.67 35	61 5.02 14	410 17.83 50	0.23	9	0	356 5.83 16	265 5.52 15	872 24.59 68	0.0	--	--	2046	885		
4-7-64	--	7.9	3500	245 12.23 34	62 5.10 14	420 18.26 51	0.13	5	0	264 4.33 12	268 5.58 16	910 25.66 72	0.0	--	--	2040	867		
5-6-64	68	7.6	3650	--	--	--	--	--	--	360 5.90	--	908 25.61	--	--	--	950	950		
6-3-64	70	8.2	3690	280 13.97 38	73 6.00 16	375 16.31 45	0.20	8	0	337 5.52 15	262 5.45 15	908 25.61 70	0.0	--	--	2072	999		
7-6-64	73	8.2	3620	280 13.97 38	73 6.00 16	375 16.31 45	0.28	11	0	314 5.15 14	268 5.58 15	924 26.06 71	0.0	--	--	2085	999		

TABLE E-1

 MINERAL ANALYSES OF GROUND WATER 1963/64
 LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent reactivity value				Mineral constituents in parts per million						
				Calcium Co	Magnesium Mg	Sodium No	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	TDS Expressed as CaCO ₃	Total hardness as CaCO ₃	
4S/13W-27A 2 S 8- 5-64	75	8.1	3760	--	--	435 18.91	0.23	9	0	352 5.77	--	--	940 26.51	--	--	--	--	990
9- 2-64	73	8.1	3730	282 14.07 37	64 5.26 14	420 18.26 48	8 0.20	8	0	344 5.64 15	258 5.37 14	0	934 26.34 70	--	--	2155	967	
4S/13W-27E 1 S 6-23-64	--	8.8	410	19 0.95 21	5 0.41 9	69 3.00 68	3 0.08	3 2	11 0.37 8	199 3.26 74	0	0	28 0.79 18	--	--	233	68	
4S/13W-27E 2 S 5- 1-64	--	8.3	3210	214 10.68 34	58 4.77 15	360 15.65 50	9 0.23	9	0	236 3.87 13	49 1.02 3	0	912 25.72 84	--	--	1718	773	
4S/13W-27K 2 S 7- 6-64	--	8.8	729	24 1.20 16	8 0.66 9	128 5.57 74	3 0.08	3 1	11 0.37 5	211 3.46 48	0	0	120 3.38 47	--	--	398	93	
4S/13W-27M 3 S 10-28-63	79	8.0	405	22 1.10 27	2 0.16 4	65 2.83 68	2 0.05	2 1	0	202 3.31 80	0	0	30 0.85 20	0.2	0.18	2.22 2.41	63	
4- 8-64	81	8.1	410	23 1.15 26	2 0.16 4	69 3.00 69	2 0.05	2 1	0	199 3.26 76	1 0.02	1	35 0.99 23	0.2	0.19	2.30 2.50	66	
4S/13W-27N 1 S 4- 8-64	82	8.3	470	20 1.00 20	2 0.16 3	86 3.74 75	3 0.08	3 2	5 0.17 3	203 3.33 68	2 0.04 1	2	48 1.35 28	0.4	0.25	2.70 2.85	58	

L A SAN GABRIEL RIVER HYDRO UNIT U0500

COASTAL PL OF LA CO HYDRO SUBUNITU05A0

U05A2

WEST COAST HYDRO SUBAREA

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million reactance value										Mineral constituents in parts per million				
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Nit- rate NO ₃	Fluo- ride F	Boron B	Silic- co SiO ₂	I.D.S. Evap.100°C Evap.105°C Computed	Total hardness as CaCO ₃	
COASTAL PL OF LA CO HYDRO SUBUNITU05A0 U05A2 L A SAN GABRIEL RIVER HYDRO UNIT U0500 WEST COAST HYDRO SUBAREA																		
4S/13W-27P ? S 7- 3-64	--	8.7	518	12 0.60 12	4 0.33 6	95 4.13 80	3 0.08 2	6 0.20 4	179/ 2.93 57	0	72 2.03 39	0.0	--	--	47			
4S/13W-27P 3 S 6-24-64	--	8.8	423	16 0.80 18	5 0.41 9	73 3.17 71	4 0.30 2	9 2.84 7	173 2.84 65	0	44 1.24 28	0.0	--	--	61			
4S/13W-27P 4 S 5-20-64	--	8.5	1050	60 2.99 29	18 1.48 14	130 5.65 55	5 0.13 1	0 4.03 39	246 4.03 39	0	223 6.29 61	0.0	--	--	224			
4S/13W-27Q 1 S 7-21-64	--	8.0	31300	608 30.34 8	810 66.61 18	6100 265.23 73	0 1.66 1	0 394 2	394 6.46 2	1520 31.65 9	11400 321.48 89	0.0	--	--	4851			
4S/13W-28N 4 S 7- 2-64	--	8.9	491	24 1.20 22	6 0.49 9	83 3.61 67	3 0.08 1	16 0.53 10	237 3.88 74	0	30 0.85 16	0.0	--	--	85			
4S/13W-28N 5 S 5-19-64	--	8.5	444	8 0.40 9	3 0.25 5	90 3.91 85	2 0.05 1	0 3.64 77	222 3.64 77	0	38 1.07 23	0.0	--	--	33			
4S/13W-29E 4 S 4-28-64	--	8.4	611	35 1.75 28	6 0.66 10	88 3.83 61	3 0.08 1	0 3.47 56	212 3.47 56	0	96 2.71 44	0.0	--	--	121			
4S/13W-30H 1 S 7-20-64	--	8.6	520	4 0.20 3	1 0.08 1	130 5.65 94	2 0.05 1	10 0.33 6	288 4.72 83	0	23 0.65 11	0.0	--	--	14			
															312			

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent reactance value				Mineral constituents in parts per million									
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	Iron	Copper	Zinc	Lead	Other	
Date sampled				Ca	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂	Fe	Cu	Pb	Zn	Other	
COASTAL PL OF LA CO HYDRO SUBUNITU05A0																					
WEST COAST HYDRO SUBAREA																					
U05A2																					
4S/13W-30H 2 S	--	8.5	430	23	8	60	4	0	228	3	31	0.0	--	--	--	--	--	--	91		
4-22-64				1.15	0.66	2.61	0.10	2	3.74	0.06	0.87								241		
				25	15	58	2		80	1	19										
4S/13W-30H 3 S	--	8.6	512	26	7	75	2	10	176	42	47	0.0	--	--	--	--	--	--	94		
6-22-64				1.30	0.58	3.26	0.05	0.33	2.88	0.87	1.33								296		
				25	11	63	1	6	53	16	25										
4S/13W-30H 4 S	--	8.7	410	18	9	60	4	14	205	0	29	0.0	--	--	--	--	--	--	82		
6-12-64				0.90	0.74	2.61	0.10	0.47	3.36	0	0.82								235		
				21	17	60	2	10	72	18	18										
4S/13W-30P 1 S	--	8.7	481	24	10	70	3	18	237	0	36	0.0	--	--	--	--	--	--	101		
6-12-64				1.20	0.82	3.04	0.08	0.60	3.88	0	1.02								278		
				23	16	59	2	11	71	19	19										
4S/13W-30P 2 S	--	8.5	424	20	8	64	3	0	240	0	24	0.0	--	--	--	--	--	--	83		
5-14-64				1.00	0.66	2.78	0.08	0	3.93	0	0.68								237		
				22	15	62	2		85	15	15										
4S/13W-30P 3 S	--	8.4	1420	110	23	152	9	0	360	56	250	0.0	--	--	--	--	--	--	369		
4-21-64				5.49	1.89	6.61	0.23	5.90	5.90	1.17	7.05								777		
				39	13	46	2	2	42	8	50										
4S/13W-31J 1 S	--	8.8	996	2	4	233	5	26	368	7	130	0.0	--	--	--	--	--	--	22		
6-17-64				0.10	0.33	10.13	0.13	0.87	6.03	0.15	3.67								588		
				1	3	95	1	8	56	1	34										
4S/13W-31J 2 S	--	8.5	1360	14	8	273	7	0	444	0	228	0.0	--	--	--	--	--	--	68		
5-15-64				0.70	0.66	11.87	0.18	7.28	7.28	6.43	47								748		
				5	5	89	1	53	53	47	47										

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Date sampled	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per million reactance value					Mineral constituents in parts per million				
					Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	I.D.S. Evap 180°C Hardness as CaCO ₃	Total Hardness as CaCO ₃	
COASTAL PL OF LA CO HYDRO SUBUNIT U05A0 WEST COAST HYDRO SUBAREA U05A2																			
4S/13W-31J 3 S 4-23-64		--	7.6	7840	374 18.66	147 12.09	1125 48.92	27 0.69	0	224 3.67	0	2720 76.70	--	--	--	--	1539		
4S/13W-31N 1 S 3-19-64		--	8.5	490	15 14	0.75 11	94 74	3 1	0	273 4.47	0	31 16	0.0	--	--	284	67		
4S/13W-31P 1 S 5- 6-64		81	7.8	1200	20 1.00	16 1.32	238 10.35	8 0.20	--	363 5.95	3 0.06	224 6.32	0.0	--	--	687	116		
4S/13W-34A 1 S 7- 7-64		--	8.5	455	7 0.35	2 0.16	98 4.26	3 0.08	0	182 2.98	0	56 1.58	0.0	--	--	255	26		
4S/13W-34A 2 S 3-30-64		--	8.1	24300	430 21.46	767 63.08	5080 220.88	54 1.38	0	448 7.34	1150 23.94	10000 282.00	0.0	--	--	17701	4230		
4S/13W-34A 3 S 5- 4-64		--	8.2	18500	624 31.14	558 45.89	2980 129.57	40 1.02	0	293 4.80	757 15.76	6688 188.60	0.0	--	--	11791	3855		
4S/13W-34M 1 S 6-25-64		--	8.8	526	18 0.90	5 0.41	95 4.13	3 0.08	10 0.33	201 3.29	0	63 1.78	0.0	--	--	293	66		
4S/13W-34M 3 S 5-21-64		--	8.5	984	19 0.95	11 0.90	186 8.09	6 0.15	0	332 5.44	0	162 4.57	0.0	--	--	547	93		

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				parts per million reactivity value				Mineral constituents in parts per million			
				Calcium M g	Magne- sium M g	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fluo- ride F	Boron B	Sili- co SiO ₂	I.O.S. Exp. 180°C	Total hardness as CaCO ₃	Total hardness as CaCO ₃	
4S/13W-35B 3 S 6-30-64	--	8.7	1000	1	0.05	1	225	7	12	425	52	75	0.0	--	--	7			
				0.08	9.78	0.18	0.40	6.97	1.08	2.12	10	20	582						
4S/13W-35B 4 S 4- 3-64	--	8.2	46000	464	23.15	1150	9500	213	0	317	2280	17300	0.0	--	--	5891			
				4	18	77	1	1	9	90	47.47	487.86	31063						
7- 9-64	--	8.7	1810	0	0	4	450	16	32	834	147	30	0.0	--	--	17			
				0.33	19.57	0.41	1.07	13.67	3.06	0.85	16	5	1089						
4S/13W-35J 2 S 4- 7-64	--	8.4	7410	178	8.88	214	1175	2	0	532	260	2260	0.0	--	--	1325			
				11	23	66	0.05	8.72	5.41	63.73	7	82	4351						
4S/13W-35M 4 S 3-27-64	--	8.2	41000	488	24.35	1220	9800	185	--	281	2510	18100	0.0	--	--	6239			
				4	18	77	1	1	9	90	4.61	52.26	510.42	32441					
4S/13W-35M 6 S 5-25-64	--	8.5	926	18	0.90	8	176	7	0	314	0	148	0.0	--	--	78			
				10	7	81	2	55	4.17	45	511								
4S/13W-35O 1 S 12-17-63	68	9.2	11600	92	4.59	190	3150	14	90	175	2570	3319	0.0	0.4	1.80	3	9326		
				3	10	87	2	2	35	61	53.51	93.60	9516						
4S/14W-1F 2 S 10-23-63	71	8.0	470	40	2.00	11	47	4	0	214	29	31	0.0	0.2	0.19	21	274		
				40	18	40	2	70	12	17	3.51	0.60	0.87	289					

L A SAN GABRIEL RIVER HYDRO UNIT U0500

COASTAL PL OF LA CO HYDRO SUBUNITU05A0

WEST COAST HYDRO SUBAREA

U05A2

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent				Mineral constituents in parts per million						
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fab- ride F	Boron B	Sil- ica SiO ₂	Total Dissolved Solids Computed		
L A SAN GABRIEL RIVER HYDRO UNIT U0500																		
COASTAL PL OF LA CO HYDRO SUBUNITU05A0																		
WEST COAST HYDRO SUBAREA U05A2																		
4S/14W- 1F 2 S 4- 3-64	--	8.2	500	37 1.85 36	12 0.99 19	52 2.26 43	0.10 0	4 2	0	226 3.70 70	34 0.71 13	30 0.85 16	0.0	0.2	0.12	19	282 299	142
4S/14W- 3L 2 S 10-24-63	70	8.4	620	42 2.10 32	1.81 2.43 28	56 2.43 38	5 0.33 2	10 0.33 5	0	221 3.62 56	34 0.71 11	64 1.80 28	0.0	0.2	0.18	23	370 365	196
4S/14W- 6G 2 S 12-20-63	--	8.3	998	64 3.19 33	14 1.15 12	122 5.30 55	3 0.08 1	0	0	222 3.64 38	77 1.60 17	154 4.34 45	0.0	--	--	--	217 543	217
5-20-64	--	8.4	1205	88 4.39 36	20 1.64 14	136 5.91 49	5 0.13 1	0	0	224 3.67 31	80 1.67 14	236 6.66 56	0.0	--	--	--	675 675	302
4S/14W- 6L 1 S 12-20-63	--	8.1	31900	1160 57.88 14	926 76.15 18	6500 282.62 68	72 1.84	0	0	192 3.15 1	1880 39.14 9	13520 381.26 90	0.0	--	--	--	24152 6707	6707
5-28-64	--	8.2	31200	1200 59.88 14	949 78.05 19	6500 282.62 67	50 1.28	0	0	193 3.16 1	1840 38.31 9	13500 380.70 90	0.0	--	--	--	24134 6902	6902
4S/14W- 7C 3 S 12-19-63	--	7.8	44100	528 26.35 5	1125 92.52 18	8700 378.28 75	272 6.96 1	0	0	188 3.08 1	2284 47.55 9	16320 460.22 90	0.0	--	--	--	29321 5948	5948
5-21-64	--	8.4	37000	540 26.95 5	1150 94.58 18	9300 404.36 76	240 6.14 1	0	0	196 3.21 1	2260 47.05 9	16900 476.58 90	0.0	--	--	--	30486 6081	6081

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million reagent value				Mineral constituents in parts per million			
				Calcium mg	Magnesium mg	Sodium No	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Chloride Cl	Sulfate SO ₄	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂
L A SAN GABRIEL RIVER HYDRO UNIT U0500															
COASTAL PL OF LA CO HYDRO SUBUNITU05A0															
WEST COAST HYDRO SUBAREA U05A2															
4S/14W-7F 1 S 12-18-63	--	8.1	49300	536 26.75	1227 100.91	9950 432.63	150 3.84	0	324 5.31	2466 51.34	18120 510.98	0.0	--	--	6388
5-21-64	--	8.4	40600	552 27.54	1270 104.44	10000 434.80	180 4.60	0	328 5.38	2420 50.38	18300 516.06	0.0	--	--	6604
4S/14W-7P 1 S 12-9-63	--	8.2	42700	592 29.54	1174 96.55	9000 391.32	330 8.44	--	608 9.97	2083 43.37	16960 478.27	0.0	--	--	6310
5-19-64	--	8.5	37700	616 30.74	1210 99.51	9250 402.19	50 1.28	31 1.03	485 7.95	2070 43.10	17000 479.40	0.0	--	--	6518
4S/14W-7P 2 S 12-2-63	--	7.6	48800	428 21.36	1290 106.09	10000 434.80	248 6.34	0	153 2.51	2790 58.09	18600 524.52	0.0	--	--	6378
5-18-64	--	8.2	42000	418 20.86	1290 106.09	10800 469.58	370 9.46	0	134 2.20	2710 56.42	19100 538.62	0.0	--	--	6353
4S/14W-7P 3 S 12-2-63	--	7.8	41900	636 31.74	1123 92.36	8550 371.75	89 2.28	0	216 3.54	2240 46.64	16280 459.10	0.0	--	--	6210
5-18-64	--	8.4	36700	616 30.74	1150 94.58	9250 402.19	90 2.30	0	231 3.79	2200 45.80	16900 476.58	0.0	--	--	6271
															30320

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE, (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				million millimoles per million value				Mineral constituents in parts per million			
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Barium Ba	Silica SiO ₂	I.D.S. as Evap. 105°C Computed	Total hardness as CaCO ₃		
L A SAN GABRIEL RIVER HYDRO UNIT U0500																			
COASTAL PL OF LA CO HYDRO SUBUNITU05A0																			
WEST COAST HYDRO SUBAREA U05A2																			
4S/14W-8D 2 S 1-23-64	--	7.5	42000	496 24.75 4	1230 101.16 18	10100 439.15 77	155 3.96 1	0	184 3.02 1	2610 54.34 10	18200 513.24 90	0.0	--	--	--	6301			
6-10-64	--	8.1	41600	469 23.40 4	1280 105.27 18	10500 456.54 77	235 6.01 1	0	166 2.72 1	2638 54.92 9	18700 527.34 90	0.0	--	--	32881 6439				
7-30-64	--	7.8	47400	489 24.40 4	1260 103.62 18	10500 456.54 77	265 6.78 1	0	15 0.25 1	2680 55.80 9	18900 532.98 90	0.0	--	--	33904 6406				
4S/14W-8E 3 S 7-28-64	--	8.4	1285	10 0.50 4	1 0.08 1	263 11.44 94	5 0.13 1	0	156 2.56 21	316 6.58 54	110 3.10 25	0.0	--	--	34101 782				
8-26-64	--	8.6	1280	0	3	270 11.74 97	6 0.15 1	0	153 2.51 21	307 6.39 53	108 3.05 26	0.0	--	--	769 3305				
4S/14W-8F 4 S 11-7-63	--	6.8	14800	796 39.72 25	320 26.32 17	2050 89.13 56	165 4.22 3	0	16 0.26 4	276 5.75 146	5200 146.64 96	0.0	--	--	8815 3395				
6-3-64	--	8.2	12100	824 41.12 28	325 26.73 18	1800 78.26 53	40 1.02 1	0	156 2.56 2	530 11.03 7	4740 133.67 91	0.0	--	--	8336 2503				
4S/14W-8F 5 S 6-3-64	--	8.0	4570	653 32.58 55	212 17.43 30	200 8.70 15	14 0.36 1	0	120 1.97 3	132 2.75 5	1960 55.27 92	0.0	--	--	3230				

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				Mineral constituents in parts per million				Total Dissolved Solids as CaCO ₃				
				Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl		Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂
COASTAL PL OF LA CO HYDRO SUBUNITU05A0																
WEST COAST HYDRO SUBAREA																
U05A2																
L A SAN GABRIEL RIVER HYDRO UNIT U0J00																
4S/14W-8F 5 S 8-26-64	--	7.6	6720	688 34.33 49	228 18.75 27	365 15.87 23	19 0.49 1	0	138 2.26 3	178 3.71 5	2240 63.17 91	3.3 0.05	--	--	--	2656 3789
9-79-64	--	8.0	6930	708 35.33 49	230 18.92 26	385 16.74 23	20 0.51 1	0	154 2.52 4	203 4.23 6	2290 64.58 91	0.0	--	--	--	2715 3912
4S/14W-8F 6 S 11-7-63	--	7.8	13600	920 45.91 29	361 29.69 19	1750 76.09 49	170 4.35 3	0	150 2.46 2	617 12.85 9	4680 131.98 90	0.0	--	--	--	3783 8572
6-3-64	--	8.1	11000	852 42.51 28	327 26.89 18	1900 82.61 54	40 1.02 1	0	148 2.43 2	611 12.72 8	4880 137.62 90	0.0	--	--	--	3473 8683
4S/14W-8M 2 S 7-28-64	--	8.3	6470	408 20.36 31	213 17.52 26	640 27.83 42	22 0.56 1	0	187 3.06 5	74 1.54 2	2180 61.48 93	0.0	--	--	--	1896 3629
4S/14W-8M 3 S 5-15-64	--	8.5	1695	117 5.84 34	30 2.47 15	196 8.52 50	5 0.13 1	--	256 4.20 25	83 1.73 10	384 10.83 65	0.0	--	--	--	416 941
7-28-64	--	8.4	1740	131 6.54 37	35 2.88 16	186 8.09 46	5 0.13 1	0	268 4.39 25	122 2.54 14	371 10.46 60	10.0 0.16 1	--	--	--	471 992
8-26-64	--	8.7	1401	97 4.84 34	25 2.06 15	164 7.13 50	5 0.13 1	10	169 2.77 19	258 5.37 38	206 5.81 41	0.0	--	--	--	345 848

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million				Mineral constituents in parts per million			
				Calcium M g	Magne- sium M g	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fluo- ride F	Baron B	Sili- co SiO ₂
4S/14W-8M 3 S 9-28-64	--	8.4	1130	82	20	132	4	0	144	296	106	0.0	--	--	287
				4.09 35	1.64 14	5.74 50	0.10 1	2.36 21	6.16 54	2.99 26	0.0	--	--	711	
4S/14W-8M 4 S 12- 6-63	--	8.1	6740	340	192	760	105	--	200	121	2200	0.0	--	1639	
				16.97 25	15.79 23	33.04 48	2.68 4	3.28 5	2.52 4	62.04 91	0.0	--	--	3816	
5-15-64	--	8.4	5333	417	196	585	17	0	186	82	2030	0.0	--	1848	
				20.81 33	16.12 26	25.44 41	0.43 1	3.05 5	1.71 3	57.25 92	0.0	--	--	3418	
7-28-64	--	8.3	6470	408	213	640	22	0	187	74	2180	0.0	--	1896	
				20.36 31	17.52 26	27.83 42	0.56 1	3.06 5	1.54 2	61.48 93	0.0	--	--	3629	
8-26-64	--	8.1	6660	384	204	685	24	0	188	69	2200	0.0	--	1798	
				19.16 29	16.78 25	29.78 45	0.61 1	3.08 5	1.44 2	62.04 93	0.0	--	--	3658	
9-28-64	--	8.3	6640	392	189	705	27	0	194	100	2150	0.0	--	1756	
				19.56 29	15.54 23	30.65 46	0.69 1	3.18 5	2.08 3	60.63 92	0.0	--	--	3658	
4S/14W-90 1 S 10- 2-63	73	8.4	925	35	11	144	6	0	296	0	164	0.0	--	133	
				1.75 19	0.90 10	6.26 69	0.15 2	4.85 51	0 49	4.62 49	0.0	--	--	506	
10-28-63	73	7.7	880	33	12	148	5	0	290	2	149	0.0	0.2	500	
				1.65 18	0.99 11	6.44 70	0.13 1	4.75 53	0.04 47	4.20 47	0.0	0.55	24	516	

COASTAL PL OF LA CO HYDRO SUBUNITU05A0 U05A2
WEST COAST HYDRO SUBAREA

L A SAN GABRIEL RIVER HYDRO UNIT U0500

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million reactance value				Mineral constituents in parts per million				
				Calcium Mg	Magne- sium	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlor- ide Cl	Ni- trate NO ₃	Fluo- ride F	Boron B	Sili- ca SiO ₂	Total hardness as CaCO ₃
L A SAN GABRIEL RIVER HYDRO UNIT U0500																
COASTAL PL OF LA CO HYDRO SUBUNITU05A0																
WEST COAST HYDRO SUBAREA U05A2																
45/14W-90 1 S 11-22-63	--	7.7	914	38 1.90 20	10 0.82 9	156 6.78 71	3 0.08 1	0	278 4.56 49	0.12 1	6 4.57 49	0.0	--	--	136	
12-10-63	55	8.2	907	35 1.75 18	11 0.90 10	144 6.26 66	22 0.56 6	--	277 4.54 47	30 0.62 6	156 4.40 46	0.0	--	--	133	
1- 6-64	72	8.2	927	36 1.80 19	10 0.82 9	156 6.78 72	3 0.08 1	0	284 4.65 50	0	168 4.74 50	0.0	--	--	131	
2- 3-64	63	--	898	35 1.75 19	11 0.90 10	146 6.35 70	4 0.10 1	0	290 4.75 54	0	144 4.06 46	0.0	--	--	133	
3- 3-64	55	7.9	879	48 2.40 28	3 0.25 3	138 6.00 69	--	0	280 4.59 53	0	144 4.06 47	0.0	--	--	133	
4- 2-64	--	7.7	820	33 1.65 18	12 0.99 11	142 6.17 69	5 0.13 1	0	291 4.77 54	5 0.10 1	138 3.89 44	0.0	0.2	24	132	
4- 8-64	73	7.7	882	36 1.80 20	11 0.90 10	138 6.00 67	8 0.20 2	0	285 4.67 53	0	144 4.06 47	0.0	--	--	135	
5- 1-64	--	8.0	874	--	--	--	--	0	283 4.64	--	144 4.06	--	--	--	143	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Date sampled	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent reactance value				Mineral constituents in parts per million			
					Calcium Mg	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂
45/14W-90 1 S 6-10-64	72	8.1	833	38	10	--	--	0	291	0	130	--	--	--	--	136
				1.90	0.82			4.77	3.67							
7- 6-64	68	8.9	799	36	11	116	5	18	248	0	124	--	--	--	135	
				1.80	0.90	5.04	0.13	0.60	4.06	3.50					4.32	
				23	11	64	2	7	50	43						
8- 3-64	73	8.3	854	33	12	--	--	--	283	--	133	--	--	--	132	
				1.65	0.99			4.64	3.75							
45/14W-10J 1 S 10-24-63	72	7.8	620	43	13	67	5	0	231	5	79	0.17	23	330	161	
				2.15	1.07	2.91	0.13		3.79	0.10	2.23	0.02				
				34	17	46	2		62	2	36					
4- 2-64	77	8.0	590	36	16	67	5	0	244	5	74	0.12	21	356	156	
				1.80	1.32	2.91	0.13		4.00	0.10	2.09	0.00				
				29	21	47	2		65	2	34					
45/14W-11F 1 S 10-23-63	73	7.9	880	71	27	76	7	0	258	58	139	0.12	23	596	288	
				3.54	2.22	3.30	0.18		4.23	1.21	3.92	0.04				
				38	24	36	2		45	13	42					
4- 2-64	72	7.8	960	44	45	85	6	0	270	55	147	0.18	21	612	295	
				2.20	3.70	3.70	0.15		4.43	1.15	4.15	0.02				
				23	38	38	2		45	12	43					
45/14W-16F 1 S 10-29-63	73	8.1	720	36	12	104	5	0	276	6	97	0.23	28	428	140	
				1.80	0.99	4.52	0.13		4.52	0.12	2.74	0.00				
				24	13	61	2		61	2	37					

COASTAL PL OF LA CO HYDRO SUBUNITU05A0
WEST COAST HYDRO SUBAREA U05A2
L A SAN GABRIEL RIVER HYDRO UNIT U0500

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million										Mineral constituents in parts per million				
				Calcium Co	Magnesium Mg	Sodium No	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Iron Fe	Copper Cu	Zinc Zn
L A SAN GABRIEL RIVER HYDRO UNIT U0500																		
COASTAL PL OF LA CO HYDRO SUBUNITU05A0																		
WEST COAST HYDRO SUBAREA U05A2																		
4S/14W-16F 1 S 4- 2-64	65	8.0	740	37 1.85	13 1.07	105 4.57	0.13 0.13	5 2	0	279 4.57	6 0.12	99 2.79	0.0	0.1	0.19	30	432	146
4S/14W-16L 2 S 10-28-63	74	8.3	760	24 4.00	14 0.99	60 4.78	0.13 0.13	2 4	0	61 4.61	2 0	37 106	0.0	0.2	0.30	29	432	150
4S/14W-16L 4 S 4- 2-64	74	7.6	750	25 36	13 16	61 109	0.13 0.13	2 5	0	60 2.83	39 10	39 108	0.0	0.2	0.20	31	445	156
4S/14W-17D 1 S 11-13-63	--	8.3	7200	23 616	17 313	59 520	0.13 0.13	2 4	0	59 4.64	3 92	39 2640	0.0	--	--	--	4415	2826
5- 8-64	--	8.1	8030	36 618	32 332	600 26.09	0.59	1	0	3 2.62	4 3.06	93 80.09	0.0	--	--	--	4639	2909
4S/14W-17D 2 S 11-13-63	--	8.3	31800	14 1048	17 766	66 5600	8.05	2	0	1 3.77	9 32.48	90 329.38	0.0	--	--	--	21082	5770
5- 8-64	--	8.4	31300	14 1020	18 777	68 5700	1.61	63	0	1 3.93	9 34.56	90 329.94	0.0	--	--	--	21038	5745
4S/14W-17D 4 S 11-14-63	--	8.1	20700	20 960	19 568	59 3300	5.75	2	0	2 3.77	8 18.76	90 7500	0.0	--	--	--	13567	4734

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million							Mineral constituents in million equivalents per million					Mineral constituents in parts per million						
				Ca	Mg	Na + K	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Fluoride	Nitrate	Barium	Silica	Total Hardness	Fluoride	Barium	Silica	Total Hardness	
Date sampled				Co	Mg	Na + K	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Fluoride	Nitrate	Barium	Silica	Total Hardness	Fluoride	Barium	Silica	Total Hardness	
									CO ₃	HCO ₃	SO ₄	Cl	F	NO ₃	B	SiO ₂	CaCO ₃	F	B	SiO ₂	CaCO ₃	
L A SAN GABRIEL RIVER HYDRO UNIT U0500																						
COASTAL PL OF LA CO HYDRO SUBUNITU05A0																						
WEST COAST HYDRO SUBAREA U05A2																						
4S/14W-17D 4 S 5- 7-64	--	8.2	21200	1020 50.90 21	577 47.45 20	3280 1.18 59	46 1.18 59	0	0	3.90 2	922 19.20 8	7720 217.70 90	0.0	0.0	--	--	4921	--	--	--	13682	4921
4S/14W-17D 5 S 11-14-63	--	8.0	41400	560 27.94 6	1096 90.14 18	8400 365.23 74	410 10.48 2	0	0	184 3.02 1	2220 46.22 9	15840 446.69 90	0.0	0.0	--	--	5909	--	--	--	28616	5909
5- 7-64	--	8.1	41000	572 28.54 6	1370 112.67 22	8400 365.23 72	100 2.56 1	0	0	186 3.05 1	2240 46.64 9	16100 454.02 90	0.0	0.0	--	--	7066	--	--	--	28873	7066
4S/14W-17D 6 S 11-14-63	--	7.9	22400	1888 94.21 37	713 58.64 23	2300 100.00 39	140 3.58 1	0	0	168 2.75 1	1220 25.40 10	8040 226.73 89	0.0	0.0	--	--	7649	--	--	--	14384	7649
5- 7-64	--	7.9	20900	1760 87.82 36	674 55.43 22	2360 102.61 42	26 0.66 4	0	0	154 2.52 1	1090 22.69 9	7760 218.83 90	0.0	0.0	--	--	7168	--	--	--	13746	7168
4S/14W-17E 3 S 11-13-63	--	8.5	8250	624 31.14 30	490 40.30 38	680 29.57 28	155 3.96 4	0	0	234 3.84 4	97 2.02 2	3280 92.50 94	0.0	0.0	--	--	3575	--	--	--	5441	3575
5- 8-64	--	8.4	9430	632 31.54 32	473 38.90 40	620 26.96 27	28 0.72 1	0	0	239 3.92 4	94 1.96 2	3280 92.50 94	0.0	0.0	--	--	3525	--	--	--	5245	3525
4S/14W-17E 4 S 11-13-63	---	8.4	28900	1084 54.09 15	745 61.27 18	5200 226.10 65	300 7.67 2	0	0	246 4.03 1	1480 30.81 9	11320 319.22 90	0.0	0.0	--	--	5773	--	--	--	20250	5773

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in				parts per million equivalents per million reactance value				Mineral constituents in parts per million					
				Calcium Mg	Magne- sium Mg	Sodium No	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Nit- rate NO ₃	Fluo- ride F	Boro- n B	Sili- co SiO ₂	I.O.S. Exp.100°C Exp.105°C Computed	Total hardness CaCO ₃
L A SAN GABRIEL RIVER HYDRO UNIT U0500																	
COASTAL PL OF LA CO HYDRO SUBUNITU05A0																	
WEST COAST HYDRO SUBAREA U05A2																	
4S/14W-17E 4 S 5- 8-64	--	8.4	30700	1030 51.40 14	771 63.41 18	5480 238.27 67	58 1.48	0	0	252 4.13 1	1550 32.27 9	11500 324.30 90	0.0	--	--	--	5745
4S/14W-17E 5 S 11-13-63	--	8.6	943	60 2.99 30	24 1.97 20	98 4.26 43	31 0.79 8	0	0	287 4.70 49	0 4.88 51	173 4.88 51	0.0	--	--	527	248
5- 8-64	--	8.4	1530	111 5.54 37	44 3.62 24	132 5.74 38	10 0.26 2	0	0	276 4.52 30	4 0.08 1	368 10.38 69	0.0	--	--	458	458
4S/14W-17F 1 S 12- 4-63	--	8.2	4110	314 15.67 38	132 10.86 26	315 13.70 33	52 1.33 3	--	--	288 4.72 12	23 0.48 1	1264 35.64 87	2.0 0.03	--	--	805	1328
5-25-64	--	8.4	3900	301 15.02 39	124 10.20 26	300 13.04 34	10 0.26 1	0	0	285 4.67 12	5 0.10 88	1190 33.56 88	0.0	--	--	2244	1262
4S/14W-17F 2 S 12- 4-63	--	7.6	11800	732 36.53 29	415 34.13 27	1200 52.18 41	145 3.71 3	--	--	196 3.21 3	383 7.97 6	4100 115.62 91	0.0	--	--	7071	3536
5-25-64	--	8.0	10200	810 40.42 32	438 36.02 29	1100 47.83 38	31 0.79 1	0	0	168 2.75 2	347 7.22 6	4130 116.47 92	0.0	--	--	6939	3825
4S/14W-17H 1 S 12- 9-63	68	7.9	744	43 2.15 27	13 1.07 14	94 4.09 52	22 0.56 7	--	--	288 4.72 57	38 0.79 9	100 2.82 34	0.0	--	--	452	161

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million percent reactance value				Mineral constituents in parts per million			
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fu- sate F	Boron B	Sil- ico SiO ₂
L A SAN GABRIEL RIVER HYDRO UNIT U0500															
COASTAL PL OF LA CO HYDRO SUBUNITU05A0															
WEST COAST HYDRO SUBAREA U05A2															
4S/14W-17H 1 S 2- 3-64	66	8.1	740	42 2.10 28	13 1.07 14	100 4.35 57	3 0.08 1	0	292 4.79 63	0	100 2.82 37	0.0	--	--	159
3- 3-64	73	8.2	794	48 2.40 30	15 1.23 15	102 4.43 55	--	0	287 4.70 58	0	118 3.33 41	3.0 0.05 1	--	--	182
4- 2-64	67	8.1	750	46 2.30 28	18 1.48 18	102 4.43 53	5 0.13 2	0	294 4.82 57	4 0.08 1	124 3.50 42	0.0	0.19	30	189
4- 8-64	75	8.4	812	48 2.40 30	18 1.48 19	90 3.91 49	8 0.20 3	0	294 4.82 61	0	110 3.10 39	0.0	--	--	194
5- 4-64	68	8.0	742	--	--	--	--	0	279 4.57	--	98 2.76	--	--	--	159
6- 9-64	73	8.4	749	42 2.10	13 1.07	--	--	0	290 4.75	0	101 2.85	--	--	--	196
7- 6-64	75	8.8	831	52 2.59 31	16 1.32 16	98 4.26 51	5 0.13 2	18 0.60 7	250 4.10 50	0	125 3.53 43	0.0	--	--	196
8- 4-64	75	8.4	782	--	--	103 4.48	4 0.10	0	238 3.90	--	108 3.05	--	--	--	167

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Date sampled	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million										Mineral constituents in parts per million				
					Calcium Mg	Magnesium Mg	Sodium No	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	TDS Extrapolated at 105°C Computed	Total Hardness as CaCO ₃	
COASTAL PL OF LA CO HYDRO SUBUNIT U05A0																			
U05A2																			
L A SAN GABRIEL RIVER HYDRO UNIT U0500																			
4S/14W-17H 1 S 9- 1-64		75	8.2	842	50 2.50 28	16 1.32 15	113 4.91 56	4 0.10 1	0	289 4.74 57	0	128 3.61 43	0.0	--	--	--	191		
4S/14W-17H 2 S 10- 2-63		75	7.8	745	42 2.10 27	13 1.07 14	100 4.35 57	6 0.15 2	0	304 4.98 63	2 0.04 1	102 2.88 36	0.0	--	--	453	159		
11-22-63		72	7.7	929	52 2.59 27	17 1.40 15	112 4.87 51	24 0.61 6	--	236 3.87 40	57 1.19 12	166 4.68 48	0.0	--	--	544	200		
1- 6-64		73	8.1	739	42 2.10 27	13 1.07 14	101 4.39 57	3 0.08 1	0	294 4.82 63	0	99 2.79 37	0.0	--	--	403	159		
4- 2-64		65	8.1	750	44 2.20 27	16 1.32 16	105 4.57 56	5 0.13 2	0	283 4.64 56	9 0.19 2	122 3.44 42	0.0	0.2	31	466	176		
4- 8-64		70	7.7	751	42 2.10 28	13 1.07 14	96 4.17 55	7 0.18 2	0	294 4.82 64	2 0.04 1	96 2.71 36	0.0	--	--	471	159		
9- 1-64		75	8.5	763	43 2.15 27	14 1.15 15	103 4.48 57	4 0.10 1	0	289 4.74 62	0	104 2.93 38	0.0	--	--	401	165		
4S/14W-18A 1 S 11- 8-63		--	8.2	21600	1112 55.49 19	720 59.21 21	3850 167.40 58	250 6.39 2	0	188 3.08 1	1010 21.03 8	9000 253.80 91	0.0	--	--	16034	5740		

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million							Mineral constituents in parts per million				
				Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂
L A SAN GABRIEL RIVER HYDRO UNIT U0500															
COASTAL PL OF LA CO HYDRO SUBUNITU05A0															
WEST COAST HYDRO SUBAREA U05A2															
4S/14W-18A 1 S 5-7-64	--	8.4	24900	1140 56.89 20	769 63.24 22	3850 167.40 58	50 1.28	0	194 3.18 1	1110 23.11 8	9240 260.57 91	0.0	--	--	6011
4S/14W-18A 2 S 11-8-63	--	8.3	36200	616 30.74 7	951 78.21 18	7200 313.06 72	490 12.53 3	0	216 3.54 1	1820 37.89 9	13640 384.65 90	0.0	--	--	5452
5-7-64	--	8.4	36000	618 30.84 7	975 80.18 19	7200 313.06 73	160 4.09 1	0	221 3.62 1	1920 39.97 9	13700 386.34 90	0.0	--	--	5555
4S/14W-18A 3 S 11-8-63	--	8.2	13600	1160 57.88 33	451 37.09 21	1740 75.66 43	160 4.09 2	0	186 3.05 2	708 14.74 9	5480 154.54 90	0.0	--	--	4752
5-7-64	--	7.9	13600	1110 55.39 36	435 35.77 23	1420 61.74 40	28 0.72	0	150 2.46 2	586 12.20 8	4840 136.49 90	0.0	--	--	4562
6-1-64	--	8.0	11527	1130 56.39 39	422 34.71 24	1200 52.18 36	25 0.64	0	180 2.95 43	10 0.21 3	131 3.69 54	0.0	--	--	4559
4S/14W-18B 1 S 5-18-64	--	8.3	32154	673 33.58 8	1040 85.53 19	7400 321.75 73	100 2.56 1	0	224 3.67 1	1870 38.93 9	14200 400.44 90	0.0	--	--	5960
4S/14W-18F 1 S 12-9-63	--	8.1	41200	496 24.75 5	1111 91.37 18	8700 378.28 74	670 17.13 3	--	274 4.49 1	2239 46.62 9	16120 454.58 90	0.0	--	--	5811

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent reactance value				Mineral constituents in parts per million			
				Calcium Mg	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂
COASTAL PL OF LA CO HYDRO SUBUNIT U05A0															
WEST COAST HYDRO SUBAREA U05A2															
4S/14W-18F 1 S 5-19-64	--	8.5	35900	520 25.95 5	1130 97.93 18	8950 389.15 76	240 6.14 1	16 0.53	240 3.93 1	2180 45.39 9	16300 459.66 90	0.0	--	--	5949
4S/14W-18F 6 S 7-29-64	--	8.1	14500	762 38.02 24	333 27.39 17	2160 93.92 59	36 0.92 1	0	193 3.16 2	626 13.03 8	5080 143.26 90	0.0	--	--	3273
8-26-64	--	7.8	14000	776 38.72 25	325 26.73 17	2090 90.87 58	46 1.18 1	0	189 3.10 2	560 11.66 7	5040 142.13 91	0.0	--	--	3275
9-29-64	--	7.9	14700	736 36.73 23	306 25.17 16	2270 98.70 61	46 1.18 1	0	195 3.20 2	584 12.16 8	5130 144.67 90	0.0	--	--	3097
4S/14W-18H 1 S 11-12-63	--	8.2	22300	1050 52.40 18	839 69.00 23	3850 167.40 56	315 8.05 3	0	214 3.51 1	1030 21.44 7	9480 267.34 91	0.0	--	--	6075
5- 6-64	--	8.4	25600	1040 51.90 17	863 70.97 24	4030 175.22 58	63 1.61 1	0	213 3.49 1	1110 23.11 8	9560 269.59 91	0.0	--	--	6148
4S/14W-18H 2 S 11-12-63	--	8.5	31300	768 38.32 11	795 65.38 18	5600 243.49 69	280 7.16 2	0	232 3.80 1	1530 31.85 9	11400 321.48 90	0.0	--	--	5189
5- 6-64	--	8.5	30400	759 37.87 10	801 65.87 18	5900 256.53 71	50 1.28	0	239 3.92 1	1670 34.77 10	11500 324.30 89	0.0	--	--	5191
															20798

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent reactance value				Mineral constituents in parts per million						
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Barium	Silica	Total Dissolved Solids		
Date sampled				Co	Mg	Na	K	CO ₃	HCO ₃	SO ₄	SO ₄	Cl	NO ₃	F	B	SiO ₂	Total Hardness	
COASTAL PL OF LA CO HYDRO SUBUNITU05A0 WEST COAST HYDRO SUBAREA U05A2																		
4S/14W-18H 2 S 5-29-64	--	8.3	26800	766 38.22	805 66.20	5800 252.18	50 1.28	0	234 3.84	1570 32.69	11500 324.30	0.0	--	--	--	--	5225	
4S/14W-18H 3 S 11-12-63	--	8.5	3940	28 1.40	108 8.88	340 14.78	60 1.53	0	272 4.46	109 2.27	1140 32.15	0.0	--	--	--	--	514	
5- 6-64	--	8.7	3360	243 12.13	93 7.65	326 14.17	14 0.36	21 0.70	317 5.20	87 1.81	962 27.13	0.0	--	--	--	--	990	
5-29-64	--	8.4	3030	216 10.78	83 6.83	290 12.61	13 0.33	0	318 5.21	58 1.21	839 23.66	0.0	--	--	--	--	881	
4S/14W-18J 1 S 11-29-63	--	7.8	35600	740 36.93	958 78.79	7000 304.36	67 1.71	0	220 3.61	1840 38.31	13500 380.70	0.0	--	--	--	--	5791	
5-11-64	--	8.2	31200	717 35.78	962 79.11	7200 313.06	75 1.92	0	216 3.54	1900 39.56	13600 383.52	0.0	--	--	--	--	5749	
4S/14W-18K 1 S 11-29-63	--	7.7	38000	764 38.12	1141 93.84	7400 321.75	71 1.82	0	240 3.93	1910 39.77	14500 408.90	0.0	--	--	--	--	6603	
5-11-64	--	8.3	33200	702 35.03	1060 87.17	8400 365.23	65 1.66	0	212 3.47	1960 40.81	14700 414.54	5.5 0.09	--	--	--	--	6115	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in							parts per million equivalents per percent reactivity value					Mineral constituents in parts per million				
				Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total hardness as CaCO ₃	I.D.S. Evap. BO°C	Evap. 105°C	Computed CaCO ₃	
L A SAN GABRIEL RIVER HYDRO UNIT U0500																				
COASTAL PL OF LA CO HYDRO SUBUNITU05A0																				
WEST COAST HYDRO SUBAREA U05A2																				
4S/14W-18P 1 S 12- 5-63	--	8.0	39100	632 31.54 7	1082 88.98 18	8000 347.84 72	580 14.83 3	--	248 4.06 1	2016 41.97 9	15360 433.15 90	0.0	--	--	--	6031				
5-13-64	--	8.5	35000	664 33.13 6	1120 92.11 18	8920 387.84 75	170 4.35 1	0	242 3.97 1	2690 56.01 11	15500 437.10 88	0.0	--	--	6267					
4S/14W-18Q 1 S 12- 5-63	--	8.0	29200	1256 62.67 19	912 75.00 22	4400 191.31 57	290 7.42 2	--	186 3.05 1	1128 23.48 7	11200 315.84 92	0.0	--	--	6889					
5-13-64	--	8.2	25900	1280 63.87 18	936 76.98 22	4700 204.36 59	83 2.12 1	0	178 2.92 1	1160 24.15 7	11300 318.66 92	0.0	--	--	7048					
4S/14W-18Q 2 S 12- 5-63	--	7.8	45900	560 27.94 5	1213 99.76 17	10000 434.80 75	580 14.83 3	--	156 2.56 1	2667 55.53 10	18320 516.62 90	0.0	--	--	6390					
5-13-64	--	8.2	40700	544 27.15 5	1200 98.69 17	10000 434.80 77	225 5.75 1	0	156 2.56 1	2540 52.88 9	18300 516.06 90	0.0	--	--	6297					
4S/14W-18Q 3 S 12- 5-63	--	7.9	25900	952 47.50 16	754 62.01 21	4250 184.79 61	245 6.26 2	--	308 5.05 2	860 17.91 6	9700 273.54 92	0.0	--	--	5480					
5-13-64	--	8.1	23000	969 48.35 16	791 65.05 21	4430 192.62 63	63 1.61 1	0	268 4.39 1	881 18.34 6	9900 279.18 92	0.0	--	--	5675					

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million							parts per million equivalents per million reagent value					Mineral constituents in parts per million				
				Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total dissolved solids TDS	Total hardness CaCO ₃			
L A SAN GABRIEL RIVER HYDRO UNIT U0500																				
COASTAL PL OF LA CO HYDRO SUBUNITU05A0																				
WEST COAST HYDRO SUBAREA U05A2																				
4S/14W-20G 1 S 11-21-63	--	8.1	13700	512 25.55 18	446 36.68 26	1840 80.00 56	0.87 1	34	0	576 9.44 7	0	4760 134.23 93	0.0	--	--	3114				
5-12-64	--	8.3	11800	415 20.71 14	463 38.08 26	2000 86.96 59	1.02 1	40	0	363 5.95 4	0	4800 135.36 96	0.0	--	--	2942				
4S/14W-20G 2 S 11-21-63	--	8.3	1572	109 5.44 33	51 4.19 25	152 6.61 40	0.20 1	8	0	436 7.15 43	0	332 9.36 57	0.0	--	--	482				
5-12-64	--	8.7	2577	190 9.48 37	88 7.24 29	192 8.35 33	0.31 1	12	34	437 7.16 28	0	612 17.26 68	0.0	--	--	837				
4S/14W-20G 3 S 11-21-63	--	8.2	1583	105 5.24 12	405 33.31 74	148 6.44 14	0.13 1	5	0	370 6.06 39	0	340 9.59 61	0.0	--	--	1929				
5-12-64	--	8.6	1639	113 5.64 34	44 3.62 22	162 7.04 43	0.15 1	6	12	303 4.97 31	0	382 10.77 67	0.0	--	--	463				
4S/14W-20G 4 S 11-21-63	--	8.1	4873	424 21.16 42	143 11.76 24	385 16.74 33	0.33 1	13	0	288 4.72 10	123 2.56 5	1464 41.28 85	0.0	--	--	1647				
5-12-64	--	8.3	4810	470 23.45 44	174 14.31 27	350 15.22 29	0.38 1	15	0	221 3.62 7	0	1750 49.35 93	0.0	--	--	1890				

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million reagent value				Mineral constituents in parts per million					
				Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total hardness as CaCO ₃	I.D.S. Eval. 100°C	Total hardness as CaCO ₃
L A SAN GABRIEL RIVER HYDRO UNIT U0500																	
COASTAL PL OF LA CO HYDRO SUBUNITU05A0																	
WEST COAST HYDRO SUBAREA U05A2																	
45/14W-21N 1 S 4- 6-64	--	7.5	910	66 3.29 31	33 2.71 25	102 4.43 42	8 0.20 2	0	422 6.92 65	1 0.02	131 3.69 35	0.0	0.2	0.30	39	592 588	300
45/14W-27N 1 S 8- 3-64	66	7.8	1060	66 3.29 28	39 3.21 27	120 5.22 44	7 0.18 2	0	312 5.11 44	92 1.92 16	164 4.62 40	0.0	0.2	0.29	--	658 642	325
45/14W-28G 1 S 8- 3-64	68	7.8	1040	80 3.99 33	32 2.63 22	117 5.09 43	10 0.26 2	0	414 6.79 57	32 0.67 6	156 4.40 37	0.0	0.2	0.33	--	656 631	331
45/14W-28J 1 S 8- 3-64	68	7.8	1575	147 7.34 38	72 5.92 31	131 5.70 30	11 0.28 1	0	411 6.74 34	350 7.29 37	197 5.56 28	0.0	0.2	0.48	--	1178 1111	664
45/14W-35E 6 S 7-15-64	78	7.6	875	58 2.89 31	20 1.64 18	104 4.52 49	5 0.13 1	0	353 5.79 63	3 0.06 1	116 3.27 36	0.0	0.3	0.25	--	535 480	227
45/14W-35F 2 S 10-28-63	75	8.5	1480	107 5.34 32	34 2.80 17	195 8.48 50	7 0.18 1	31 1.03 6	342 5.61 34	209 4.35 26	197 5.56 34	0.0	0.2	0.58	27	978 976	407
4- 3-64	--	7.6	820	50 2.50 28	22 1.81 20	106 4.61 51	5 0.13 1	0	350 5.74 64	4 0.08 1	114 3.21 36	0.0	0.2	0.26	30	500 503	216
45/14W-36G 2 S 6-11-64	--	8.7	1880	53 2.64 14	36 2.96 16	282 12.26 67	14 0.36 2	33 1.10 6	410 6.72 36	3 0.06 0.06	380 10.72 58	0.0	--	--	--	1003	280

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in						parts per million equivalents per million				Mineral constituents in parts per million				
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Baron	Silica	IO ₃	Total Hardness as CaCO ₃	
Date sampled				Co	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂	Computed	as CaCO ₃	
L A SAN GABRIEL RIVER HYDRO UNIT U0500																		
COASTAL PL OF LA CO HYDRO SUBUNITU05A0																		
WEST COAST HYDRO SUBAREA U05A2																		
4S/14W-36G 3 S 5-12-64	--	8.5	597	12 0.60	0.58 9	115 5.00 79	0.15 2	6 9	18 4.92 76	300 0	0	34 0.96 15	--	--	--	--	340	59
4S/14W-36G 4 S 4-16-64	--	8.5	937	45 2.25 23	1.64 59	136 5.91 59	0.20 2	8 5	14 5.70 58	348 0	130 3.67 37	0.00	--	--	--	524	195	
4S/14W-36H 1 S 10-29-63	76	8.0	805	25 1.25 15	0.74 9	136 5.91 73	0.20 2	8 2	0 5.61 69	342 0	89 2.51 31	1.8 0.03	0.4	0.50	26	442 464	100	
5S/12W-3C 1 S 9-28-64	--	8.1	491	12 0.60 10	0.16 3	114 4.96 86	0.05 1	2 0	0 4.79 84	292 0	32 0.90 16	0.00	--	--	--	306	38	
5S/12W-3F 2 S 8-25-64	--	8.3	7400	64 3.19 4	1.16 9.54 12	1440 62.61 82	50 1.28 2	0 6	313 5.13 7	102 2.12 3	2420 68.24 90	0.00	--	--	--	4346	637	
5S/13W-1A 1 S 6-4-64	--	8.9	2230	36 1.80 8	0.33 12	430 18.70 80	11 0.28 1	39 6	612 10.03 43	0	425 11.99 51	0.00	--	--	--	1275	226	
5S/13W-2J 3 S 5-6-64	--	8.4	10200	120 5.99 6	243 19.98 19	1780 77.39 74	67 1.71 2	0 6	366 6.00 6	412 8.58 8	3280 92.50 86	0.00	--	--	--	6082	1300	
5S/13W-3P17 S 6-29-64	--	9.1	1830	0 0.33 2	4 19.13 97	440 19.13 97	8 0.20 1	55 1.83 9	678 11.11 57	54 1.12 6	198 5.58 28	0.00	--	--	--	1092	17	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				Mineral constituents in parts per million						
				Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	TDS Spec Extr. 105°C Computed	Total hardness CaCO ₃	
COASTAL PL OF LA CO HYDRO SUBUNITU05A0																		
WEST COAST HYDRO SUBAREA U05A2																		
5S/13W-6D 1 S 10-29-63	--	8.0	2300	30 1.50	17 1.40	465 20.22	12 0.31	0	544 8.92	0.06	3 14.30	507 61	0.0	1.00	1.90	26	1368	145
				6 30	6 18	86 450	1 11	0	38 562	0	0 508	61	0.0	--	--	--	1330	149
11- 5-63	33	8.5	2380	1.50	1.48	19.57	0.28	1	9.21	0	14.33	61	0.0	--	--	--	1293	
				7 51	6 22	86 444	1 --	1	39 578	0	61	516	0.0	--	--	--		218
12- 4-63	34	8.4	2390	2.54	1.81	19.31	--	--	9.47	0	14.55	61	0.0	--	--	--	1317	
				11 30	8 18	82 415		0	39 526	0	61	452	0.0	--	--	--		149
1- 6-64	31	7.8	2240	1.50	1.48	18.04	0.23	1	8.62	0.35	12.75	59	0.0	--	--	--	1200	
				7 61	7 33	85 390	1 8	1	40 540	2	59	502	0.0	--	--	--		288
2- 5-64	86	7.9	2280	3.04	2.71	16.96	0.20	1	8.85	0.29	14.16	61	0.0	--	--	--	1274	
				13 27	12 19	74 460	1 10	0	38 541	1	61	488	1.0	--	--	--		146
3- 3-64	82	8.2	2320	1.35	1.56	20.00	0.26	1	8.87	0.21	13.76	60	0.02	--	--	--	1281	
				6 36	7 15	86 465	1 11	0	39 541	1	60	488	1.0	--	--	--		146
4- 6-64	89	8.3	2200	1.80	1.23	20.22	0.28	1	8.87	0.19	14.49	61	0.03	1.0	1.70	33	1312	152
				8 8	5 5	86 86	1 1	0.23	37 8.87	1	61	488	2.1	1.0	1.70	33	1361	152
5- 6-64	82	8.0	2280	--	--	--	--	0	544	--	493	13.90	--	--	--	--	150	
				--	--	--	--	0	8.92	--	13.90	493	--	--	--	--	150	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				Mineral constituents in parts per million			
				Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total Hardness as CaCO ₃
55/13W-60 1 S 6-3-64	31	8.5	2300	32	19	450	11	0	546	0	504	0.0	--	--	158
				1.60	1.56	19.57	0.28	8.95	14.21	61	39	1284			
7-6-64	32	8.5	2290	32	19	450	12	0	549	11	500	0.0	--	--	158
				1.60	1.56	19.57	0.31	9.00	14.10	60	39	1294			
8-5-64	32	8.3	2390	--	--	450	10	0	550	--	504	--	--	--	152
						19.57	0.26	9.01	14.21						
9-2-64	32	8.8	2390	32	16	480	10	30	480	8	494	0.0	--	--	146
				1.60	1.32	20.87	0.26	7.87	13.93	61	34	1306			
55/13W-98 2 S 3-25-64	--	8.2	37700	432	944	7600	133	592	168	1410	0	--	--	--	4963
				21.56	77.63	330.45	3.40	19.73	2.75	29.36					
55/13W-11G 1 S 5-20-64	--	8.7	958	7	3	225	2	14	459	0	84	0.0	--	--	30
				0.35	0.25	9.78	0.05	0.47	7.52	2.37	7.52	2.37	561		
55/13W-11G 2 S 6-9-64	--	8.1	48800	499	1310	10500	210	0	289	2600	19100	0.0	--	--	6637
				24.90	107.73	456.54	5.37	4.74	54.13	538.62	9	34361			

COASTAL PL OF LA CO HYDRO SUBUNITU05A0
WEST COAST HYDRO SUBAREA U05A2
L A SAN GABRIEL RIVER HYDRO UNIT U0500

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				Mineral constituents in parts per million				
				Calcium Mg	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total Dissolved Solids TDS
COASTAL PL OF LA CO HYDRO SUBUNIT U05A0																
SANTA MONICA HYDRO SUBAREA U05A3																
1S/15W-33D 4 S 7-15-64	70	7.0	881	80 3.99 41	41 3.37 34	54 2.35 24	0 0.08 1	0 0 0	268 4.39 45	165 3.44 35	66 1.86 19	8.0 0.13 1	0.5 --	0.08 --	637 549	368 431
2S/14W-5D 8 S 10- 6-63	--	7.5	1250	100 4.99 40	44 3.62 29	88 3.83 31	4 0.10 1	0 0 0	440 7.21 52	181 3.77 27	100 2.82 20	0.0 --	--	--	733	300
?- 4-64	--	8.2	1040	51 2.54 23	42 3.45 32	112 4.87 45	3 0.08 1	0 0 0	288 4.72 43	156 3.25 30	100 2.82 26	7.0 0.11 1	--	--	613	384
4-14-64	72	7.9	1180	83 4.14 33	43 3.54 28	112 4.87 38	7 0.18 1	0 0 0	426 6.98 55	144 3.00 24	96 2.71 21	0.0 --	--	--	694	300
6-17-64	--	8.4	1050	61 3.04 27	36 2.96 27	115 5.00 45	4 0.10 1	0 0 0	408 6.69 59	84 1.75 16	100 2.82 25	0.0 --	--	--	601	264
2S/14W-19C 1 S 1- 7-64	70	8.2	979	58 2.89 30	29 2.38 25	97 4.22 44	3 0.08 1	0 0 0	368 6.03 63	109 2.27 24	46 1.30 14	0.0 --	--	--	523	326
4-70-64	70	8.4	1080	78 3.89 32	32 2.63 22	120 5.22 43	11 0.28 2	10 0.33 3	396 6.49 54	112 2.33 19	100 2.82 24	0.0 --	--	--	658	--
5- 5-64	70	7.9	962	-- -- --	-- -- --	-- -- --	-- -- --	0 0 0	373 6.11	-- --	70 1.97	-- --	-- --	-- --	-- --	-- --

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million				Mineral constituents in parts per million				
				Calcium Ca	Magne- sium Mg	Sodium Na	Potass- ium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fer- ride Fe	Boron B	Sul- fa- te SO ₂	Total Hardness as CaCO ₃
COASTAL PL OF LA CO HYDRO SUBUNITU05A0																
SANTA MONICA HYDRO SUBAREA U05A3																
2S/14W-19C 1 S 9- 1-64	72	8.2	967	74 3.69	31 2.55	--	--	0	377 6.18	--	72 2.03	--	--	--	312	
2S/14W-19C 2 S 10- 1-63	72	8.2	1160	97 4.84 39	35 2.88 23	108 4.70 37	0.15 0.15 1	6 0	410 6.72 52	134 2.79 22	119 3.36 26	--	--	701	386	
2- 4-64	70	8.1	1020	79 3.94 36	32 2.63 24	99 4.30 39	0.08 0.08 1	3 0	278 4.56 46	129 2.69 27	98 2.76 28	--	--	577	329	
4-2J-64	70	8.6	1240	86 4.29 30	36 2.96 21	150 6.52 46	14 0.36 3	20 0.67 5	420 6.88 49	118 2.46 17	144 4.06 29	--	--	778	363	
6-10-64	70	8.3	1170	100 4.99	37 3.04	--	--	--	388 6.36	137 2.85	120 3.38	--	--	402		
2S/15W-11F 3 S 10- 6-63	--	7.5	1170	88 4.39 38	43 3.54 30	83 3.61 31	5 0.13 1	0	356 5.83 45	219 4.56 36	86 2.43 19	--	--	699	397	
10-23-63	--	7.4	1040	86 4.29 37	38 3.13 27	94 4.09 35	5 0.13 1	0	331 5.43 47	203 4.23 36	67 1.89 16	0.4 0.05	0.25	680 691	371	
2- 9-64	--	8.3	1090	88 4.39 38	33 2.71 23	102 4.43 38	3 0.08 1	0	316 5.18 44	210 4.37 37	72 2.03 17	--	--	670	355	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos of 25°C)	Mineral constituents in parts per million				parts per million equivalents per million reactance value				Mineral constituents in parts per million						
				Calcium C.O.	Magnesium Mg	Sodium No	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	LD ₅₀ Spec Exposure Index Computed	Total hardness CaCO ₃	
COASTAL PL OF LA CO HYDRO SUBUNIT U05A0																		
SANTA MONICA HYDRO SUBAREA U05A3																		
25/15W-11F 3 S 4-19-64	--	7.6	1080	134 6.69 56	12 0.99 8	97 4.22 35	0.15 0.15 1	6 0	0	355 5.82 48	209 4.35 36	71 2.00 16	0.0	0.4	0.28	33	704 737	384
6-17-64	--	8.3	1070	87 4.34 36	4.0 3.29 27	97 4.22 35	0.13 0.13 1	5 0	0	340 5.57 47	198 4.12 35	76 2.14 18	2.2 0.04	--	--	--	672	382
25/15W-140 2 S 10- 1-63	70	8.2	1500	132 6.59 40	51 4.19 26	128 5.57 34	3 0.08	0	0	450 7.38 44	221 4.60 28	153 4.31 26	20.0 0.32	--	--	--	929	539
11-14-63	--	7.8	1500	127 6.34 39	52 4.28 27	124 5.39 34	2 0.05	0	0	432 7.08 43	227 4.73 29	144 4.06 25	36.0 0.58	--	--	--	924	531
1- 7-64	68	8.0	1500	129 6.44 39	52 4.28 26	130 5.65 34	1 0.03	0	0	414 6.79 41	218 4.54 28	148 4.17 25	60.0 0.97	--	--	--	942	536
2- 4-64	70	8.1	1380	104 5.19 34	52 4.28 28	130 5.65 37	2 0.05	0	0	350 5.74 38	220 4.58 30	128 3.61 24	80.0 1.29	--	--	--	888	474
3- 3-64	68	8.1	1470	126 6.29 38	54 4.44 26	139 6.04 36	--	0	0	436 7.15 43	223 4.64 28	144 4.06 25	42.0 0.68	--	--	--	942	537
4-10-64	70	8.3	1510	126 6.29 37	53 4.36 25	147 6.39 37	5 0.13 1	0	0	452 7.41 44	226 4.71 28	152 4.29 25	38.2 0.62	--	--	--	969	533

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				Mineral constituents in parts per million				Mineral constituents in parts per million			
				Calcium Mg	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Flo- ride F	Boron B	Sili- co SiO ₂
COASTAL PL OF LA CO HYDRO SUBUNITU05A0															
SANTA MONICA HYDRO SUBAREA U05A3															
L A SAN GABRIEL RIVER HYDRO UNIT U0500															
2S/15W-14Q 2 S 5- 5-64	68	7.8	1470	--	--	--	--	0	444 7.28	--	144 4.06	--	--	--	550
6-10-64	66	8.3	1500	133 6.64	42 3.45	--	--	0	436 7.15	214 4.46	148 4.17	--	--	505	
7- 7-64	70	8.4	1500	130 6.49 38	65 5.35 31	124 5.39 31	2 0.05	0	460 7.54 44	222 4.62 27	148 4.17 24	44.0 0.71	--	592	
2S/15W-22B 8 S 11-14-63	--	7.4	1790	143 7.14 36	51 4.19 21	192 8.35 42	4 0.10 1	--	480 7.87 42	351 7.31 39	110 3.10 16	40.0 0.65	--	567	
3- 3-64	68	8.0	1770	135 6.74 35	58 4.77 25	179 7.78 40	--	--	468 7.67 40	350 7.29 38	152 4.29 22	2.5 0.04	--	576	
4-10-64	--	8.3	1853	146 7.29 34	59 4.85 23	208 9.04 42	7 0.18 1	0	524 8.59 40	366 7.62 35	148 4.17 19	70.0 1.13	--	607	
7- 7-64	70	8.6	1790	137 6.84 36	59 4.85 26	160 6.96 37	4 0.10 1	11 0.37 2	350 5.74 30	343 7.14 38	148 4.17 22	90.0 1.45	--	585	
2S/15W-22E 3 S 2-13-64	--	7.5	10100	594 29.64 27	311 25.58 23	1230 53.48 49	14 0.36	0	316 5.18 5	815 16.97 16	3040 85.73 79	0.0	--	2763	
														6159	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million				Mineral constituents in parts per million						
				Calcium	Magne- sium	Sodium	Potas- sium	Carbon- ate	Bicar- bonate	Sulfate	Chlo- ride	Ni- trate	Fluo- ride	Boron	Sul- fo	I.D.S. Evap. 180°C as CaCO ₃	Total Hardness as CaCO ₃	
Date sampled				Co	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SO ₂	Computed		
COASTAL PL OF LA CO HYDRO SUBUNITU05A0																		
SANTA MONICA HYDRO SUBAREA U05A3																		
25/15W-22E 3 S	--	7.9	9630	584	335	1140	10	0	324	738	3040	0.0	--	--	--	--	2837	
7-16-64				29.14	27.55	49.57	0.26	5.31	15.37	85.73	81	0.0	--	--	--	--	6006	
				27	26	47		5	14									
9-30-64	70	7.6	9000	553	330	1180	20	0	410	745	3071	0.0	0.1	0.39	--	--	6930	2739
				27.59	27.14	51.31	0.51	6.72	15.51	86.60	80	0.0	0.1	0.39	--	--	6101	
				26	25	48		6	14									
25/15W-22E 4 S	--	7.5	3790	174	108	486	5	0	172	390	980	0.0	--	--	--	--	879	
2-13-64				8.68	8.88	21.13	0.13	2.82	8.12	27.64	72	0.0	--	--	--	--	2228	
				22	23	54		7	21									
9-30-64	71	7.9	3400	206	98	470	6	0	325	398	911	0.0	0.1	0.52	--	--	2408	918
				10.28	8.06	20.44	0.15	5.33	8.29	25.69	65	0.0	0.1	0.52	--	--	2249	
				26	21	53		14	21									
25/15W-22E 5 S	--	7.7	3888	189	102	540	4	0	360	617	760	85.0	--	--	--	--	892	
2-13-64				9.43	8.39	23.48	0.10	5.90	12.85	21.43	3	1.37	--	--	--	--	2474	
				23	20	57		14	31	52		3	--	--	--	--		
7-16-64	--	7.9	3790	185	94	480	2	0	288	550	752	30.0	--	--	--	--	849	
				9.23	7.73	20.87	0.05	4.72	11.45	21.21	1	0.48	--	--	--	--	2235	
				24	20	55		12	30	56		1	--	--	--	--		
9-30-64	69	7.3	3900	184	102	620	7	0	379	524	954	21.0	0.1	0.68	--	--	2564	879
				9.18	8.39	26.96	0.18	6.21	10.91	26.90	61	0.34	--	--	--	--	2599	
				21	19	60		14	25	61		1	--	--	--	--		
25/15W-23A 1 S	--	7.6	3390	293	105	450	2	0	327	312	1078	23.0	0.6	1.45	19	3026	1164	
11- 6-63				14.62	8.64	19.57	0.05	5.36	6.50	30.40	71	0.37	0.6	1.45	19	3026	1164	
				34	20	46		13	15	15		1					2445	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million				Mineral constituents in parts per million equivalents per million reactance value				Mineral constituents in parts per million							
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	Total Hardness			
Date sampled				Co	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂	Ca	Mg	Hardness at 105°C	Computed
COASTAL PL OF LA CO HYDRO SUBUNIT U0500																			
SANTA MONICA HYDRO SUBAREA U05A3																			
2S/15W-23A 1 S	--	7.4	3800	279	83	470	5	0	340	353	975	33.0	0.4	1.12	19	2750	1038		
4-1-64				13.92	6.83	20.44	0.13		5.57	7.35	27.50	0.53				2386			
2S/15W-23A b S	64	7.9	2580	144	96	302	6	0	270	395	555	0.0	0.6	0.85	25	1980	756		
11-8-63				7.19	7.90	13.13	0.15		4.43	8.22	15.65					1657			
				25	28	46	1		16	29	55								
11-8-63	65	8.0	2200	167	84	298	7	0	332	391	540	0.0	0.6	0.85	24	1926	763		
				8.33	6.91	12.96	0.18		5.44	8.14	15.23					1676			
				29	24	46	1		19	28	53								
4-6-64	65	7.5	2650	228	59	340	8	0	337	407	596	0.0	0.6	0.72	23	1996	817		
				11.38	4.85	14.78	0.20		5.52	8.47	16.81					1828			
				36	16	47	1		18	28	55								
2S/15W-23C 4 S	68	8.1	2380	200	80	235	2	0	432	487	284	100.0	--	--	--	829			
1-7-64				9.98	6.58	10.22	0.05		7.08	10.14	8.01	1.61				1600			
				37	25	38			26	38	30	6							
4-10-64	68	7.8	2300	192	76	220	6	0	444	482	268	70.0	--	--	--	792			
				7.58	6.25	9.57	0.15		7.28	10.04	7.56	1.13				1532			
				37	24	37	1		28	39	29	4							
5-1-64	66	7.5	3360	--	--	--	--	0	405	764	400	--	--	--	--	1092			
									6.64	15.91	11.28								
9-1-64	71	8.2	2330	166	80	--	--	0	450	--	267	--	--	--	--	744			
				8.28	6.58	--	--		7.38	--	7.39								

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Date sampled	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per million reagent value					Mineral constituents in parts per million				
					Calcium Mg	Magne- sium Mg	Sodium No	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fuo- ride F	Boron B	Silic- co SiO ₂	Total Hardness as CaCO ₃		
COASTAL PL OF LA CO HYDRO SUBUNIT U0500																			
SANTA MONICA HYDRO SUBAREA U05A3																			
25/15W-23J 4 S 11-8-63		65	7.6	3150	293 14.62 36	137 11.27 27	345 15.00 37	0.10	4	0	634 30.39 25	851 17.72 43	447 12.61 31	17.0 0.27 1	0.6	0.95	19	2590 2426	1796
4-14-64		67	8.0	3700	253 12.62 28	168 13.82 31	425 18.48 41	0.13	5	0	371 6.08 14	917 19.09 43	663 18.70 42	44.0 0.71 2	0.4	0.79	18	2916 2677	1323
25/15W-23N 1 S 10-22-63		--	7.3	4050	331 16.52 33	158 12.99 26	457 19.87 40	0.18	7	0	512 8.39 17	784 16.32 32	911 25.69 51	0.0	0.2	0.98	14	3126 2915	1477
11-8-63		--	7.3	4400	341 17.02 30	195 16.04 29	520 22.61 40	0.18	7	0	545 8.93 16	812 16.91 30	1064 30.00 54	0.0	0.4	1.04	16	3692 3224	1654
11-18-63		--	7.6	5050	340 16.97 31	186 15.30 28	520 22.61 41	0.15	6	0	540 8.85 16	813 16.93 30	1080 30.46 54	0.0	--	--	--	3211	1615
12-10-63		63	7.7	4681	330 16.47 31	178 14.64 27	500 21.74 41	0.74	29	--	526 8.62 16	795 16.55 31	1000 28.20 53	0.0	--	--	--	3091	1557
1-7-64		64	8.1	4890	4.8 20.36 34	225 18.50 30	500 21.74 36	0.13	5	0	474 6.95 11	780 16.24 26	1360 38.35 62	0.0	--	--	--	1945	1945
2-4-64		64	8.1	4550	316 15.77 30	175 14.39 28	495 21.52 42	0.10	4	0	596 9.77 19	739 15.39 30	940 26.51 51	19.0 0.31 1	--	--	--	3486	1509
																		2981	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million reagent value				Mineral constituents in parts per million					
				Calcium C.a	Magne- sium M.g	Sodium Na	Potas- sium K	Carbon- ate C.O. ₃	Bicar- bonate H.C.O. ₃	Sulfate S.O. ₄	Chlo- ride Cl	Ni- trate N.O. ₃	Fluo- ride F	Baron B	Sili- ca S.i.O. ₂	I.D.S. E.P.D. I.O.S.C. C.O.S.C. C.O.L.U.S.	Total hardness C.O.L.U.S.
Date sampled																	
COASTAL PL OF LA CO HYDRO SUBUNITU05A0																	
SANTA MONICA HYDRO SUBAREA U05A3																	
25/15W-23N 1 S 3- 3-64	63	7.8	5810	412 20.56 32	230 18.92 29	582 25.31 39	--	0	518 8.49 13	808 16.82 26	1400 39.48 61	0.0	--	--	--	3687	1976
4- 6-64	65	7.4	5300	457 22.80 33	224 18.42 27	630 27.39 40	8 0.20	0	541 8.87 13	821 17.09 24	1564 44.10 63	0.0	0.2	0.80	14	4512 3985	2063
4-10-64	64	7.9	6460	444 22.16 30	264 21.71 30	670 29.13 40	12 0.31	0	532 8.72 12	878 18.28 25	1640 46.25 63	0.0	--	--	--	4170	2195
5- 5-64	64	7.5	6250	--	--	--	--	0	532 8.72	-- 43.88	1556	--	--	--	--	--	--
6- 9-64	61	7.9	7700	580 28.94	235 19.33	--	--	0	532 8.72	843 17.55	2180 61.48	--	--	--	--	--	2415
7- 7-64	66	8.3	5780	480 23.95 32	271 22.29 30	640 27.83 37	8 0.20	0	420 6.88 9	830 17.28 23	1760 49.63 67	0.0	--	--	--	4196	2314
8- 4-64	73	7.9	9690	672 33.53	390 32.07	--	--	--	506 8.29	-- 78.96	2800	--	--	--	--	--	3283
9- 1-64	68	7.7	10400	600 29.94	481 39.56	--	--	0	494 8.10	-- 90.24	3200	--	--	--	--	--	3478

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent				Mineral constituents in parts per million				Total hardness as CaCO ₃		
				Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Sulfide S		CO ₂	SO ₂
COASTAL PL. OF LA CO HYDRO SUBUNIT U05A0																		
SANTA MONICA HYDRO SUBAREA U05A3																		
2S/15W-23N 1 S 9-23-64	--	7.2	11400	808 40.32 31	446 26.68 28	1220 53.05 41	10 0.26	0	0	474 7.77	938 19.53 15	3520 99.26 78	0.0	--	--	--	7175	3853
2S/15W-24D 1 S 11- 6-63	--	8.0	2890	145 7.24 23	71 5.84 18	425 18.48 58	3 0.08	0	0	377 6.18 20	747 5.14 16	709 19.99 64	6.8 0.11	0.6	1.50	17	2026	655
4- 3-64	66	7.5	2900	119 5.94 19	81 6.66 21	430 18.70 60	3 0.08	0	0	428 7.01 22	250 5.21 17	673 18.98 61	6.7 0.11	0.6	1.10	19	1832	631
2S/15W-24D 5 S 4- 3-64	66	8.2	1300	56 2.79 20	48 3.95 28	160 6.96 50	10 0.26	0	0	220 3.61 26	198 4.12 30	215 6.06 44	0.0	0.2	0.28	11	840	337
2S/15W-27L 1 S 2-10-64	--	8.1	2500	92 4.59 18	72 5.92 24	330 14.35 57	13 0.33	0	0	537 8.80 34	6 0.12 6	560 15.79 62	50.0 0.81 3	--	--	--	1387	526
7-14-64	--	8.1	2760	95 4.74 17	76 6.25 22	384 16.70 60	8 0.20	0	0	583 9.56 34	49 1.02 4	628 17.71 63	0.0	--	--	--	1527	550
2S/15W-27L 2 S 2-10-64	--	8.1	24000	248 12.38 4	635 52.22 17	5600 243.49 78	115 2.94	0	0	700 11.47 4	934 19.45 6	9960 280.87 90	0.0	--	--	--	17836	3233
4S/12W-23C 1 S 9- 1-64	--	8.7	320	14 0.70	2 0.16	60 2.61	1 0.03	7 0.23	1 7	128 2.10	12 0.25	6 0.17	--	--	20	--	216	43

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent reactance value				Mineral constituents in parts per million				
				Calcium Mg	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Bureau U	State CO	I.D. Evap. 100°C I.D. Evap. 100°C hardness CO ₂
L A SAN GABRIEL RIVER HYDRO UNIT U0500																
COASTAL PL OF LA CO HYDRO SUBUNITU05A0																
SANTA MONICA HYDRO SUBAREA U05A3																
45/12W-23C 1 S 9-29-64	--	8.7	326	20 1.00	4 0.33	47 2.04	2 0.05	14 0.47	132 2.16	15 0.31	10 0.28	--	--	18	67	
45/12W-23K 3 S 12-31-63	--	8.5	340	10 0.50	2 0.16	60 2.61	1 0.03	5 0.17	149 2.44	35 0.73	12 0.34	--	--	18	33	
1-28-64	--	8.6	340	12 0.60	2 0.16	65 2.83	1 0.03	6 0.20	132 2.16	28 0.58	13 0.37	--	--	16	38	
3- 3-64	--	8.6	350	11 0.55	1 0.08	64 2.78	2 0.05	6 0.20	144 2.36	16 0.33	13 0.37	--	--	17	32	
6-30-64	--	8.6	335	10 0.50	3 0.25	62 2.70	1 0.03	7 0.23	142 2.33	15 0.31	11 0.31	--	--	16	38	
45/12W-24M 8 S 8- 4-64	--	8.7	355	15 0.75	2 0.16	58 2.52	2 0.05	7 0.23	149 2.44	7 0.15	21 0.59	--	--	17	46	
8-27-64	--	8.4	367	23 1.15	2 0.16	58 2.52	2 0.05	0	167 2.74	19 0.40	18 0.51	--	--	19	66	
45/12W-28H12 S 10- 1-63	--	8.8	335	5 0.25	2 0.16	62 2.70	1 0.03	11 0.37	165 2.70	10 0.21	15 0.42	--	--	15	21	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million							Mineral constituents in parts per million					
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Ni- trate NO ₃	Flo- ride F	Boron B	Sul- fo- S- O ₂	Total Hardness as CaCO ₃	
COASTAL PL OF LA CO HYDRO SUBUNIT U0500																
SANTA MONICA HYDRO SUBAREA U05A3																
45/12W-28H12 S 10-29-63	--	8.9	335	5 0.25	2 0.16	64 2.78	1 0.03	10 0.33	168 2.75	8 0.17	16 0.45	--	--	17	283	21
12-31-63	--	8.8	342	5 0.25	1 0.08	70 3.04	1 0.03	8 0.27	170 2.79	10 0.21	16 0.45	--	--	18	260	17
6- 3-64	--	8.8	345	5 0.25	1 0.08	71 3.09	1 0.03	8 0.27	170 2.79	10 0.21	16 0.45	--	--	19	220	17
6-30-64	--	8.8	348	5 0.25	1 0.08	72 3.13	1 0.03	10 0.33	170 2.79	10 0.21	15 0.42	--	--	17	241	17
8- 4-64	--	8.6	345	6 0.30	1 0.08	72 3.13	1 0.03	6 0.20	176 2.88	5 0.10	17 0.48	--	--	16	201	19
9- 1-64	--	8.9	345	5 0.25	1 0.08	70 3.04	1 0.03	11 0.37	170 2.79	5 0.10	10 0.28	--	--	17	241	17
9-20-64	--	9.0	356	5 0.25	1 0.08	65 2.83	1 0.03	8 0.27	176 2.88	10 0.21	5 0.14	--	--	21		17

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million							Mineral constituents in parts per million						
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fluo- ride F	Boron B	Sulf- co SO ₂	I.D.S. Exp. 105°C Computed	Total Hardness ex- CaCO ₃
L A SAN GABRIEL RIVER HYDRO UNIT U0500																	
COASTAL PL OF LA CO HYDRO SUBUNITU05A0																	
HOLLYWOOD HYDRO SUBAREA U05A4																	
1S/14W-10N 1 S 10-14-63	--	7.3	320	27 1.35 39	6 0.49 14	35 1.52 44	4 0.10 3	0	74 1.21 37	73 1.52 46	19 0.54 17	0.0	1.0	0.26	3	204	92
7- 6-64	--	7.7	433	28 1.40 35	6 0.49 12	46 2.00 50	4 0.10 3	0	45 0.74 19	110 2.29 59	30 0.85 22	0.0	1.4	0.29	--	205	95
CENTRAL HYDRO SUBAREA																	
2S/11W- 5B11 S 8-11-64	67	8.1	15	39 1.95 26	30 2.47 33	53 2.30 31	30 0.77 10	0	512 8.39 77	0	87 2.45 22	3.7 0.06 1	--	--	--	494	221
2S/11W- 6G 2 S 8-11-64	84	8.4	834	87 4.34 55	21 1.73 22	42 1.83 23	2 0.05 1	0	267 4.38 55	120 2.50 32	32 0.90 11	8.3 0.13 2	--	--	--	444	304
2S/11W- 8N 1 S 8-11-64	65	8.2	1040	113 5.64 52	23 1.89 17	74 3.22 30	4 0.10 1	0	209 3.43 31	270 5.62 51	68 1.92 17	4.5 0.07 1	--	--	--	659	377
2S/11W-18C 2 S 8-24-64	65	7.7	931	100 4.99 50	20 1.64 16	74 3.22 32	4 0.10 1	0	176 2.88 29	236 4.91 49	72 2.03 20	9.8 0.16 2	--	--	--	602	332
2S/11W-19L 1 S 8-11-64	64	7.9	931	104 5.19 53	23 1.89 19	62 2.70 27	4 0.10 1	0	202 3.31 33	209 4.35 43	78 2.20 22	10.7 0.17 2	--	--	--	590	354

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent reactance value				Mineral constituents in parts per million				
				Calcium M g	Magne-sium M g	Sodium Na	Potas-sium K	Carbon-ate CO ₃	Bicar-bonate HCO ₃	Sulfate SO ₄	Chlo-ride Cl	Ni-trate NO ₃	Fluo-ride F	Boron B	Sil-ico-SiO ₂	Total Hardness as CaCO ₃
L A SAN GABRIEL RIVER HYDRO UNIT U0500																
COASTAL PL OF LA CO HYDRO SUBUNITU05A0																
CENTRAL HYDRO SUBAREA U05A5																
2S/11W-19M 1 S 8-11-64	64	7.9	861	97 4.84	22 1.81	54 2.35	0.08 0.08	3 0.3	0	188 3.08	199 4.14	70 1.97	5.0 0.08	--	--	333
2S/11W-19M 4 S 8-17-64	--	7.8	980	53 99	20 1.64	26 3.78	1 0.08	1 3	0	33 177	45 244	21 81	1 9.7	--	--	329
2S/12W-1R 2 S 11- 6-63	66	8.1	1010	47 96	16 1.7	36 102	1 4	1 4	0	28 176	49 257	22 92	2 0.0	--	--	310
12- 4-63	70	8.2	995	45 97	13 1.40	41 4.43	1 0.10	1 3	0	27 173	49 248	24 88	0.0	--	--	316
1- 3-64	66	7.8	996	45 92	14 1.8	40 4.35	1 0.08	1 3	0	27 172	49 248	24 76	0.0	--	--	308
2- 6-64	--	7.4	1000	44 93	15 1.56	40 4.13	1 0.08	1 3	0	27 2.82	50 5.16	21 88	2 0.21	--	--	302
3- 3-64	63	8.0	992	44 82	13 24	42 84	0.08 3	0	0	29 182	47 234	24 88	1 0.08	--	--	303
4-13-64	68	7.8	970	44 93	14 1.8	40 4.22	1 0.10	1 4	0	30 3.13	45 4.71	24 90	0.03	1.0	0.25	306
				44	14	40	1	1		30	45	24				645

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million				Mineral constituents in						
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	I.D.S. Evap. (80°C hardness as CaCO ₃)	Total hardness as CaCO ₃	
Date sampled				Ca	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂			
COASTAL PL OF LA CO HYDRO SUBUNIT U05A0																		
CENTRAL HYDRO SUBAREA U05A5																		
2S/12W-1R 2 S	70	7.7	971	--	--	--	--	--	191	--	88	--	--	--	--	--	--	--
5-5-64				92	18	98	4	0	3.13	2.20	2.48	0.0	--	--	--	304		
6-5-64	68	8.3	980	4.59	1.48	4.26	0.10	4.56	3.61	4.56	2.26	0.0	--	--	--	620		
				44	14	41	1	35	44	44	22							
7-1-64	--	7.9	960	87	24	96	4	0	207	209	94	0.0	0.6	0.18	--	316		
				4.34	1.97	4.17	0.10	4.39	3.39	4.39	2.65							
				41	19	39	1	33	42	42	26							
7-7-64	68	8.3	952	91	18	98	4	0	192	223	88	4.0	--	--	--	301		
				4.54	1.48	4.26	0.10	4.64	3.15	4.64	2.48	0.06	--	--	--	620		
				44	14	41	1	30	45	45	24	1						
8-18-64	68	8.2	980	80	21	103	4	0	192	218	89	10.0	--	--	--	286		
				3.99	1.73	4.48	0.10	4.54	3.15	4.54	2.51	0.16	--	--	--	619		
				39	17	43	1	30	44	44	24	2						
8-31-64	66	8.3	980	81	21	107	4	0	188	224	88	10.0	--	--	--	289		
				4.04	1.73	4.65	0.10	4.66	3.08	4.66	2.48	0.16	--	--	--	627		
				38	16	44	1	30	45	45	24	2						
2S/12W-1R 6 S	68	8.2	1010	89	19	102	4	0	197	209	108	3.0	--	--	--	300		
8-11-64				4.44	1.56	4.43	0.10	4.35	3.23	4.35	3.05	0.05	--	--	--	631		
				42	15	42	1	30	41	41	29							
9-30-64	67	8.1	975	85	17	--	--	0	189	--	92	--	--	--	--	282		
				4.24	1.40	--	--	3.10	--	--	2.59	--	--	--	--			

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				parts per million				Mineral constituents in parts per million			
				Calcium Mg	Magnesium Mg	Sodium No	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total hardness as CaCO ₃	Expos. 18°C Computed	Expos. 105°C Computed	Total hardness as CaCO ₃
COASTAL PL OF LA CO HYDRO SUBUNIT U0500																			
CENTRAL HYDRO SUBAREA U05A5																			
25/12W-7C 2 S 8-12-64	79	7.9	616	51 2.54 39	16 1.32 20	59 2.57 40	0.05	2	0	228 3.74 58	52 1.08 17	52 1.47 23	8.2 0.13 2	--	--	--	352	193	
25/12W-9M 1 S 3-12-64	70	8.2	912	106 5.29 55	27 2.22 23	46 2.00 21	0.05	2	0	270 4.43 47	85 1.77 19	112 3.16 33	9.8 0.16 2	--	--	--	521	376	
25/12W-9M 2 S 8-12-64	73	7.7	887	56 2.79 32	22 1.81 21	94 4.09 47	0.08	3	0	264 4.33 50	38 0.79 9	128 3.61 41	0.0	--	--	--	471	230	
25/12W-10J 1 S 10-21-63	69	7.8	604	70 3.49 55	13 1.07 17	40 1.74 27	0.08	3	0	234 3.84 61	41 0.85 14	55 1.55 25	0.5 0.01	0.4	0.12	2.8	380	228	
2-18-64	--	7.8	539	53 2.64 45	8 0.66 11	58 2.52 43	0.08	3	0	260 4.26 71	28 0.58 10	40 1.13 19	2.6 0.04 1	0.3	0.22	2.7	311	165	
4-20-64	--	8.3	535	26 1.30 23	26 2.14 37	51 2.22 39	0.08	3	0.10	233 3.82 67	28 0.58 10	43 1.21 21	0.0	0.1	0.10	--	320	172	
9-22-64	--	7.4	520	56 2.79 49	6 0.49 9	53 2.30 41	0.08	3	0	234 3.84 69	28 0.58 10	42 1.18 21	0.0	0.4	0.30	--	330	164	
25/12W-10K 3 S 4-20-64	--	8.4	540	59 2.94 49	6 0.49 8	56 2.43 41	0.08	3	0.20	230 3.77 64	26 0.54 9	48 1.35 23	0.0	0.1	0.25	--	336	172	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million										Mineral constituents in parts per million			
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicer- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fuc- ride F	Boron B	Sil- co SiO ₂	Total D.S. Exp. Spec Hardness USP Computed CaCO ₃	
L A SAN GABRIEL RIVER HYDRO UNIT U0500																	
COASTAL PL OF LA CO HYDRO SUBUNITU05A0																	
CENTRAL HYDRO SUBAREA U05A5																	
2S/12W-10K 3 S 8-12-64	73	--	546	52 2.59 45	11 0.90 16	50 2.17 38	3 0.08 1	0	248 4.06 69	27 0.56 10	44 1.24 21	0.0	--	--	175		
2S/12W-12A 3 S 8-11-64	68	8.2	527	14 0.70 15	7 0.58 12	77 3.35 70	5 0.13 3	0	64 1.05 22	78 1.62 33	76 2.14 44	3.2 0.05 1	--	--	64		
2S/12W-12E 6 S 10-21-63	68	7.6	841	100 4.99 56	18 1.48 17	54 2.35 26	4 0.10 1	0	227 3.72 42	142 2.96 34	75 2.12 24	2.0 0.03	0.5	0.14	324		
9-22-64	--	7.6	860	50 2.50 27	47 3.87 42	63 2.74 30	4 0.10 1	0	225 3.69 40	154 3.21 35	84 2.37 26	1.0 0.02	0.2	0.13	319		
2S/12W-12M 2 S 2-18-64	--	7.6	761	84 4.19 52	17 1.40 17	55 2.39 30	4 0.10 1	0	232 3.80 46	133 2.77 34	55 1.55 19	5.0 0.08 1	0.4	0.12	280		
4-20-64	--	7.8	800	36 1.80 21	45 3.70 44	66 2.87 34	4 0.10 1	0	227 3.72 44	142 2.96 35	64 1.80 21	1.0 0.02	0.2	0.20	275		
8-12-64	68	8.1	786	82 4.09 49	13 1.07 13	71 3.09 37	4 0.10 1	0	222 3.64 44	140 2.91 35	60 1.69 20	6.8 0.11 1	--	--	258		
2S/12W-13D 7 S 11-19-63	64	7.9	800	63 3.14 34	22 1.81 20	93 4.04 44	5 0.13 1	0	118 1.93 21	236 4.91 54	78 2.20 24	4.4 0.07 1	0.2	0.22	248		

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Date sampled	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million							Mineral constituents in parts per million						
					Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Ferric Fe	Boron B	Silica SiO ₂	Total dissolved solids on a Computed basis	
COASTAL PL OF LA CO HYDRO SUBUNITU05A0																		
CENTRAL HYDRO SUBAREA U05A5																		
2S/12W-13D 7 S 4-13-64		66	7.1	920	87 4.34 43	26 2.14 21	80 3.48 35	4 0.10 1	0	184 3.02 30	230 4.79 47	80 2.26 22	6.2 0.10 1	0.4	0.14	17	656 621	324
4-20-64		--	8.1	940	92 4.59 45	27 2.22 22	77 3.35 33	4 0.10 1	0	196 3.21 31	223 4.64 45	81 2.28 22	5.0 0.08 1	0.2	0.10	--	630 606	341
8-11-64		67	8.1	977	102 5.09 51	20 1.64 16	74 3.22 32	4 0.10 1	0	195 3.20 31	221 4.60 45	81 2.28 22	8.9 0.14 1	--	--	--	607	337
9-22-64		--	7.9	900	60 2.99 29	46 3.78 36	82 3.57 34	4 0.10 1	0	205 3.36 32	218 4.54 44	87 2.45 24	0.0	0.2	0.09	--	630	339
7S/12W-14B 2 S 4-20-64		--	8.2	920	90 4.49 43	19 1.56 15	97 4.22 41	5 0.13 1	0	188 3.08 29	245 5.10 48	81 2.28 21	9.0 0.15 1	0.4	0.22	--	642	303
2S/12W-14B 8 S 10-21-63		68	7.3	999	91 4.54 43	23 1.89 18	90 3.91 37	6 0.15 1	0	203 3.33 32	205 4.27 41	86 2.43 24	17.0 0.27 3	0.6	0.36	18	670 637	322
2-18-64		--	7.4	976	94 4.69 45	21 1.73 16	91 3.96 38	6 0.15 1	0	199 3.26 31	226 4.71 44	81 2.28 21	25.0 0.40 4	0.6	0.18	18	624 661	321
4-20-64		--	7.9	675	65 3.24 45	18 1.48 21	55 2.39 33	4 0.10 1	0	160 2.62 36	131 2.73 38	66 1.86 26	0.0	0.2	0.15	--	436 418	236

TABLE E-1
 MINERAL ANALYSES OF GROUND WATER 1963/64
 LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				Mineral constituents in parts per million									
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	F F	B B	SiO ₂ co	Total I.O. Expt.105°C Expt.105°C Computer CoCl ₂	Total hardness as CaCl ₂
L A SAN GABRIEL RIVER HYDRO UNIT U0500																	
COASTAL PL OF LA CO HYDRO SUBUNITU05A0																	
CENTRAL HYDRO SUBAREA U05A5																	
2S/12W-14B 8 S 8-11-64	65	8.1	992	90 4.49 44	21 1.73 17	90 3.91 38	0.13 1	0	0 2.90 28	177 4.85 47	233 2.40 23	85 0.17 2	10.7	--	--	622	311
2S/12W-19C 1 S 8-12-64	81	8.1	792	57 2.84 35	18 1.48 18	86 3.74 46	0.08 1	0	201 3.29 40	142 2.96 36	142 1.89 23	1.8 0.03 23	1.8	--	--	474	216
8-15-64	77	8.4	610	60 2.99 47	13 1.07 17	50 2.17 34	0.10 2	0	233 3.82 58	80 1.67 25	40 1.13 17	0.0	0.0	--	--	362	203
2S/12W-21B 5 S 10- 8-63	62	7.8	791	96 4.79 56	22 1.81 21	43 1.87 22	0.10 1	0	229 3.75 44	145 3.02 36	55 1.55 18	8.3 0.13 2	8.3	0.20	23	560	330
1-31-64	--	7.9	774	98 4.89 58	17 1.40 17	48 2.09 25	0.08 1	0	215 3.52 41	155 3.23 37	62 1.75 20	12.0 0.19 2	12.0	0.18	23	487	315
7-28-64	--	8.1	800	71 3.54 41	34 2.80 32	53 2.30 26	0.08 1	0	196 3.21 37	169 3.52 41	66 1.86 22	1.0 0.02 22	1.0	0.17	--	554	317
9-22-64	--	7.8	770	66 3.29 39	36 2.96 35	50 2.17 26	0.08 1	0	190 3.11 37	169 3.52 42	60 1.69 20	2.0 0.03 20	2.0	0.4	--	494	313
2S/12W-21J 1 S 8-11-64	64	8.1	749	87 4.34 55	19 1.56 20	45 1.96 25	0.08 1	0	194 3.18 42	133 2.77 36	58 1.64 21	2.2 0.04 1	2.2	--	--	443	295

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				Mineral constituents in parts per million				Total hardness CaCO ₃				
				Calcium C _a	Magne-sium Mg	Sodium Na	Potass-ium K	Carbon-ate CO ₃	Bicar-bonate HCO ₃	Sulfate SO ₄	Chlo-ride Cl		Ni-trate NO ₃	Fluo-ride F	Baron B	Sili-ca SiO ₂
L A SAN GABRIEL RIVER HYDRO UNIT U0500																
COASTAL PL OF LA CO HYDRO SUBUNITU05A0																
CENTRAL HYDRO SUBAREA U05A5																
2S/12W-22J 1 S 8-17-64	--	8.2	986	92 4.59 42	19 1.56 14	105 4.57 42	0.10	4	0	177 2.90 28	236 4.91 48	82 2.31 22	12.0 0.19	--	--	308
2S/12W-23B 4 S 8-17-64	--	8.0	874	98 4.89 53	19 1.56 17	64 2.78 30	0.08	3	0	188 3.08 33	186 3.87 42	74 2.09 23	10.0 0.16	--	--	323
2S/12W-23P 4 S 8-17-64	--	8.3	935	93 4.64 47	18 1.48 15	83 3.61 37	0.10	4	0	184 3.02 31	212 4.41 45	79 2.23 23	14.1 0.23	--	--	306
2S/12W-24E 6 S 10- 8-63	64	7.5	953	124 6.19 58	29 2.38 22	45 1.96 18	5	0	261 4.28 41	199 4.14 40	59 1.66 16	59 2.23 16	19.0 0.31	0.16	25	429
2-18-64	--	7.6	924	121 6.04 59	24 1.97 19	49 2.13 21	5	0	222 3.64 35	214 4.46 43	68 1.92 18	68 2.03 18	26.0 0.42	0.10	22	401
7-20-64	--	8.0	930	74 3.69 36	49 4.03 40	54 2.35 23	4	0	220 3.61 35	214 4.46 43	72 2.03 20	72 2.03 20	10.0 0.16	0.17	--	386
9-22-64	--	7.7	860	96 4.79 51	30 2.47 26	48 2.09 22	4	0	186 3.05 32	213 4.43 46	70 1.97 20	70 1.97 20	10.0 0.16	0.15	--	363
2S/12W-25E10 S 10- 8-63	60	7.5	934	111 5.54 55	27 2.22 22	50 2.17 22	5	0	178 2.92 29	237 4.93 50	72 2.03 20	72 2.03 20	3.8 0.06	0.10	22	388

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				Mineral constituents in parts per million									
				Calcium	Magne- sium	Sodium	Potas- sium	Carbon- ate	Bicar- bonate	Sulfate	Chlo- ride	Ni- trate	Fluo- ride	Baron	Sil- co	I.D.S. Expt. 180°C hardness as CaCO ₃	
Date sampled				Co	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂	Total hardness as CaCO ₃	
L A SAN GABRIEL RIVER HYDRO UNIT U0500																	
COASTAL PL OF LA CO HYDRO SUBUNITU05A0																	
CENTRAL HYDRO SUBAREA U05A5																	
2S/12W-25E10 S 2-18-64	--	7.5	907	110 5.49 55	23 1.89 19	56 2.43 24	0.13 1	0	176 2.88 29	234 4.87 50	68 1.92 20	8.8 0.14 1	0.5	0.10	21	599 613 636	369 370
4-20-64	--	8.1	860	94 4.69 47	33 2.71 27	57 2.48 25	4 0.10 1	0	165 2.70 25	266 5.54 52	82 2.31 22	3.0 0.05	0.2	0.12	--	620 660 593	371
7-28-64	--	7.6	930	71 3.54 35	47 3.87 38	60 2.61 26	4 0.10 1	0	159 2.61 25	227 4.73 46	103 2.90 28	3.0 0.05	0.2	0.10	--	660 622 579	363
9-22-64	--	7.7	880	81 4.04 41	39 3.21 33	56 2.43 25	4 0.10 1	0	165 2.70 27	235 4.89 49	81 2.28 23	1.0 0.02	0.6	0.15	--	622 579	360
2S/12W-25E 1 S 8-17-64	--	7.8	935	108 5.39 54	22 1.81 18	60 2.61 26	4 0.10 1	0	165 2.70 27	246 5.12 51	78 2.20 22	4.5 0.07 1	--	--	--	604	349
2S/12W-25E 6 S 8-11-64	66	7.8	898	102 5.09 54	23 1.89 20	55 2.39 25	4 0.10 1	0	176 2.88 30	221 4.60 47	74 2.09 22	7.5 0.12 1	--	--	--	573	329
2S/12W-25G 1 S 8-11-64	64	8.0	967	94 4.69 46	23 1.89 19	81 3.52 35	4 0.10 1	0	156 2.56 25	250 5.21 52	80 2.26 22	5.0 0.08 1	--	--	--	614	363
2S/12W-25M 1 S 8-11-64	63	7.7	859	106 5.29 58	24 1.97 22	40 1.74 19	4 0.10 1	0	172 2.82 31	210 4.37 48	68 1.92 21	5.7 0.09 1	--	--	--	542	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million reactivity value				Mineral constituents in parts per million					
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fluo- ride F	Boron B	Sili- co SiO ₂	Total Evap 180°C Evap 105°C as CaCO ₃ Computed	
COASTAL PL OF LA CO HYDRO SUBUNIT U05A0																	
CENTRAL HYDRO SUBAREA U05A5																	
25/12W-25P 7 S 11-19-63	--	7.6	820	77 3.84 39	33 2.71 28	71 3.09 32	4 0.10 1	0	184 3.02 31	225 4.68 48	69 1.95 20	4.9 0.08 1	0.2	0.24	18	618 593	328
4-15-64	66	7.5	830	101 5.04 50	21 1.73 17	72 3.13 31	4 0.10 1	0	203 3.33 33	226 4.71 47	69 1.95 19	7.0 0.11 1	0.2	0.14	19	634 619	339
25/12W-26E 3 S 10- 8-63	63	8.0	956	114 5.69 55	25 2.06 20	55 2.39 23	5 0.13 1	0	200 3.28 32	228 4.75 47	72 2.03 20	9.4 0.15 1	0.5	0.11	22	700 629	388
1-31-64	--	7.4	959	115 5.74 54	23 1.89 18	64 2.78 26	5 0.13 1	0	205 3.36 31	230 4.79 45	74 2.09 20	28.0 0.45 4	0.5	0.14	23	628 663	382
7-28-64	--	8.0	950	69 3.44 33	49 4.03 39	65 2.83 27	6 0.15 1	0	195 3.20 31	227 4.73 46	78 2.20 21	11.0 0.18 2	0.2	0.12	--	680 601	374
9-22-64	--	7.2	900	86 4.29 43	34 2.80 28	63 2.74 28	4 0.10 1	0	197 3.23 31	222 4.62 45	81 2.28 22	9.0 0.15 1	0.6	0.05	--	650 596	355
25/12W-27G 5 S 8-11-64	68	7.7	817	95 4.74 55	22 1.81 21	46 2.00 23	4 0.10 1	0	178 2.92 34	180 3.75 44	63 1.78 21	7.0 0.11 1	--	--	--	505	328
25/12W-28A 4 S 10- 8-63	62	7.7	649	79 3.94 55	15 1.23 17	45 1.96 27	3 0.08 1	0	227 3.72 52	105 2.19 30	45 1.27 18	1.0 0.02 0	0.6	0.13	20	435 425	259

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million							Mineral constituents in parts per million						
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Flo- ride F	Boron B	Sul- fate SO ₂	I.D.S. Evap-105°C Exp-105°C Computed CALC	Total hardness as CaCO ₃
COASTAL PL OF LA CO HYDRO SUBUNITU05A0																	
CENTRAL HYDRO SUBAREA																	
U05A5																	
2S/12W-28A 4 S 2-18-64	--	7.8	658	80 3.99	14 1.15	44 1.91	3 0.08	0	224 3.67	109 2.27	45 1.27	3.8 0.06	0.4	0.12	18	405 427	257
4-20-64	--	8.0	620	73 3.64	18 1.48	48 2.09	3 0.08	0	207 3.39	113 2.35	50 1.41	0.0	0.1	0.17	--	416 407	256
7-28-64	--	7.9	680	68 3.39	24 1.97	47 2.04	3 0.08	0	207 3.39	120 2.50	51 1.44	0.0	0.2	0.15	--	444 415	268
9-22-64	--	7.4	650	77 3.84	16 1.32	44 1.91	3 0.08	0	212 3.47	112 2.33	53 1.49	0.0	0.4	0.17	--	432 410	258
2S/12W-280 1 S 8-11-64	64	8.2	923	107 5.34	23 1.89	57 2.48	4 0.10	0	188 3.08	217 4.52	74 2.09	7.2 0.12	--	--	--	582	362
2S/12W-29A 4 S 8-11-64	75	8.1	742	86 4.29	23 1.89	40 1.74	2 0.05	0	221 3.62	120 2.50	54 1.52	10.0 0.16	--	--	--	444	309
2S/12W-30H 2 S 11-21-63	--	7.8	580	57 2.84	23 1.89	48 2.09	3 0.08	0	226 3.70	99 2.06	43 1.21	6.3 0.10	0.2	0.13	21	430 412	237
4-13-64	72	7.5	615	69 3.44	18 1.48	50 2.17	3 0.08	0	227 3.72	103 2.14	46 1.30	4.8 0.08	0.2	0.16	23	438 429	246

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million										Mineral constituents in parts per million				
				Calcium	Magne-sium	Sodium	Potas-sium	Carbon-ate	Bicar-bonate	Sulfate	Chlo-ride	Ni-trate	Fluo-ride	Boron	Silico	Total hardness as CaCO ₃		
Date sampled				Co	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂	Computed		
COASTAL PL OF LA CO HYDRO SUBUNIT U05A0																		
CENTRAL HYDRO SUBAREA U05A5																		
25/12W-31M 2 S 8-12-64	68	8.0	639	66 3.29	19 1.56	44 1.91	2 0.05	0	262 4.29	55 1.15	40 1.13	11.1 0.18	--	--	--	--	243	
75/12W-34P 1 S 11-19-63	64	7.9	530	51 2.54	27 2.22	29 1.26	4 0.10	0	140 2.29	126 2.62	39 1.10	10.0 0.16	0.2	0.15	18	366	238	
4-13-64	70	7.7	740	90 4.49	22 1.81	30 1.30	4 0.10	0	230 3.77	132 2.75	43 1.21	8.9 0.14	0.4	0.08	19	472	315	
25/12W-34R 1 S 8-11-64	72	7.6	681	86 4.29	19 1.56	30 1.30	3 0.08	0	203 3.33	125 2.60	40 1.13	6.6 0.11	--	--	--	293	293	
25/12W-35D 2 S 10- 8-63	62	8.1	799	59 108	22 1.89	18 1.48	1 0.10	0	46 3.67	36 3.46	16 4.9	2 8.5	0.5	0.07	24	409	364	
1-31-64	--	7.4	770	61 101	21 23	17 36	1 4	0	42 205	40 175	16 52	2 14.0	0.5	0.08	21	527	347	
4-20-64	--	7.9	780	59 4.89	22 1.89	18 1.57	1 0.10	0	39 3.36	32 3.64	3 17	3 0.23	0.2	0.10	--	454	327	
8-17-64	--	7.7	840	59 108	20 1.81	39 1.83	4 0.08	0	167 3.11	180 4.02	59 1.72	5.0 0.12	--	--	--	487	360	
				59	20	20	1	0	35	45	19	1				530		

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million percent reactance value				Mineral constituents in parts per million			
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂
L A SAN GABRIEL RIVER HYDRO UNIT U0500															
COASTAL PL OF LA CO HYDRO SUBUNITU05A0															
CENTRAL HYDRO SUBAREA U05A5															
2S/13W-2M 1 S 4- 3-64	66	7.8	979	101 5.04 48	25 2.06 20	77 3.35 32	2 0.05	--	295 4.84 46	144 3.00 29	95 2.68 25	0.0	--	--	355
2S/13W-10A 4 S 4-10-64	66	7.7	1050	117 5.84 53	30 2.47 22	63 2.74 25	2 0.05	0	308 5.05 45	126 2.62 23	124 3.50 31	0.0	--	--	416
2S/13W-10R 6 S 4- 3-64	68	8.0	565	61 3.04 49	14 1.15 19	44 1.91 31	2 0.05 1	--	220 3.61 60	79 1.64 27	28 0.79 13	0.0	--	--	210
2S/13W-11G 6 S 4- 3-64	66	7.8	586	59 2.94 46	16 1.32 21	47 2.04 32	2 0.05 1	--	226 3.70 59	82 1.71 27	31 0.87 14	0.0	--	--	213
2S/13W-11N 5 S 4- 3-64	64	7.9	675	73 3.64 50	19 1.56 21	48 2.09 28	2 0.05 1	--	274 4.49 57	123 2.56 32	30 0.85 11	1.0 0.02	--	--	260
2S/13W-11P 2 S 4- 3-64	66	8.1	773	84 4.19 49	21 1.73 20	58 2.52 30	2 0.05 1	--	249 4.08 49	113 2.35 28	67 1.89 23	0.0	--	--	296
2S/13W-12A 1 S 8-12-64	77	7.9	678	59 2.94 43	19 1.56 23	54 2.35 34	2 0.05 1	0	238 3.90 56	48 1.00 14	64 1.80 26	14.8 0.24 3	--	--	225
2S/13W-12C 1 S 7- 6-64	73	7.5	576	58 2.89 45	18 1.48 23	44 1.91 30	3 0.08 1	0	246 4.03 62	81 1.69 26	29 0.82 13	0.6 0.01	0.17 30	0.6	219

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent reactance value				Mineral constituents in parts per million					
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fluo- ride F	Boron B	Sili- ca SiO ₂	IDS Exad 105PC Computed	Total Address Co.UG
2S/13W-12K 1 S 2-18-64	67	8.2	290	12 0.60 19	2 0.16 5	52 2.26 73	3 0.08 3	0	57 0.93 31	2 0.04 1	71 2.00 67	0.0	0.4	0.09	1	190 171	38
2S/13W-13A 1 S 4- 3-64	70	8.0	553	52 2.59 44	14 1.15 19	49 2.13 36	1 0.03 1	--	221 3.62 62	58 1.21 21	37 1.04 18	0.0	--	--	--	320	187
2S/13W-13E 2 S 4- 3-64	66	8.1	539	52 2.59 44	11 0.90 15	53 2.30 39	2 0.05 1	--	213 3.49 60	72 1.50 26	28 0.79 14	0.0	--	--	--	175	
2S/13W-15N 3 S 7- 2-64	65	8.1	630	52 2.59 38	28 2.30 33	44 1.91 28	4 0.10 1	0	244 4.00 57	101 2.10 30	33 0.93 13	0.0	0.2	0.15	--	416 382	245
2S/13W-25H 3 S 7- 6-64	75	7.5	550	54 2.69 46	13 1.07 18	47 2.04 35	3 0.08 1	0	226 3.70 63	63 1.31 22	30 0.85 15	0.2	0.5	0.13	22	347 344	188
2S/13W-28H 1 S 10-11-63	--	7.7	600	69 3.44 50	16 1.32 19	45 1.96 29	4 0.10 1	0	221 3.62 54	93 1.94 29	36 1.02 15	7.3 0.17 2	0.2	0.05	19	436 398	238
7- 2-64	--	8.1	770	69 3.44 43	27 2.22 28	51 2.22 28	3 0.08 1	0	247 4.05 52	109 2.27 29	48 1.35 17	6.0 0.10 1	0.2	0.16	--	466 435	283
2S/13W-34D 4 S 11- 7-63	--	7.5	1130	128 6.39 49	45 3.70 28	66 2.87 22	4 0.10 1	0	339 5.56 42	235 4.89 37	99 2.79 21	3.9 0.06	0.4	0.28	22	832 770	505

COASTAL PL OF LA CO HYDRO SUBUNIT U05A0
CENTRAL HYDRO SUBAREA U05A5
L A SAN GABRIEL RIVER HYDRO UNIT U0500

TABLE E-1
 MINERAL ANALYSES OF GROUND WATER 1963/64
 LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				Mineral constituents in parts per million				Mineral constituents in parts per million						
				Calcium	Magne- sium	Sodium	Potas- sium	Carbon- ate	Bicar- bonate	Sulfate	Chlo- ride	Ni- trate	F uc- ride	Burce	Silic- co	I.D.S. Evap. 180°C	Total hardness as CaCO ₃	
Date sampled				Co	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SO ₂	Computer	Total	
COASTAL PL OF LA CO HYDRO SUBUNIT U05A0																		
CENTRAL HYDRO SUBAREA U05A5																		
L A SAN GABRIEL RIVER HYDRO UNIT U0500																		
2S/14W-14C 2 S 11-20-63	--	7.9	610	50 2.50 34	33 2.71 37	47 2.04 28	4 0.10 1	0	250 4.10 55	102 7.12 29	36 1.02 14	9.7 0.16 2	0.2	0.22	21	4.32 4.26		261
4-14-64	81	7.8	650	72 3.59 48	21 1.73 23	48 2.09 28	4 0.10 1	0	252 4.13 56	97 2.02 27	39 1.10 15	10.0 0.16 2	0.2	0.15	17	4.28 4.32		266
2S/14W-22P 2 S 11-20-63	71	8.0	580	46 2.30 33	27 2.22 32	54 2.35 34	4 0.10 1	0	247 4.05 59	85 1.77 26	36 1.02 15	0.0	0.2	0.18	21	4.26 3.95		226
4-12-64	73	7.3	590	67 3.34 49	13 1.07 16	54 2.35 34	4 0.10 1	0	250 4.10 60	77 1.60 24	39 1.10 16	0.0	0.2	0.18	23	4.02 4.00		221
2S/14W-23H 3 S 11-20-63	--	7.7	660	61 3.04 38	34 2.80 35	49 2.13 26	4 0.10 1	0	263 4.31 54	99 2.06 26	47 1.33 17	16.0 0.26 3	0.2	0.15	20	4.72 4.60		292
4-14-64	65	7.5	750	75 3.74 45	27 2.22 27	52 2.26 27	4 0.10 1	0	268 4.39 53	109 2.27 27	52 1.47 18	8.2 0.13 2	0.2	0.17	18	4.84 4.77		298
2S/14W-23H12 S 11-20-63	64	8.0	600	52 2.59 37	29 2.38 34	46 2.00 28	4 0.10 1	0	249 4.08 57	93 1.94 27	34 0.96 13	11.0 0.18 3	0.1	0.17	20	4.08 4.12		249
4-14-64	65	7.7	650	70 3.49 47	21 1.73 23	48 2.09 28	4 0.10 1	0	256 4.20 56	94 1.96 26	39 1.10 15	11.0 0.18 2	0.2	0.17	19	4.20 4.32		261

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million reactance value				Mineral constituents in parts per million				
				Calcium M g	Magne- sium M g	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trete NO ₃	Fluo- ride F	Boron B	Sili- ca SiO ₂	I.D.S. Exposed as Computed
3S/11W-2K 1 S 7-1-64	85	7.2	3450	196	126	460	9	0	351	1281	266	0.0	0.4	1.00	2726	1008
				9.78	10.36	20.00	0.23	5.75	26.67	7.50	0.0	14	67	19	0.0	0.06
3S/11W-20J 5 S 7-21-64	74	7.9	477	50	8	40	2	0	197	29	35	2.0	0.4	0.06	284	
				2.50	0.66	1.74	0.05	3.23	0.60	0.99	0.03	67	12	20	1	0.6
3S/11W-21N 5 S 7-21-64	--	7.4	1857	225	51	140	5	0	491	387	197	4.0	0.6	0.64	1282	
				11.23	4.19	6.09	0.13	8.05	8.06	5.56	0.06	37	26	26	3.0	0.12
3S/11W-27E 3 S 7-21-64	--	7.5	1166	118	39	92	3	0	272	316	78	0.05	0.6	0.21	272	24
				5.89	3.21	4.00	0.08	4.46	6.58	2.20	0.05	34	50	17	0.0	0.6
3S/11W-27G 1 S 11-21-63	76	8.3	400	8	1	91	1	2	171	50	16	0.0	0.4	0.15	272	27
				0.40	0.08	3.96	0.03	0.07	2.80	1.04	0.45	24	10	10	0.0	0.4
4-14-64	84	7.9	430	9	1	90	2	0	173	53	18	0.0	0.4	0.15	272	27
				0.45	0.08	3.91	0.05	2.84	1.10	0.51	11	25	11	0.0	0.4	20
3S/11W-28P 5 S 11-21-63	--	8.0	510	44	15	51	2	0	226	59	30	0.0	0.4	0.16	270	
				2.20	1.23	2.22	0.05	3.70	1.23	0.85	15	21	15	0.0	0.4	18
4-14-64	68	7.8	550	51	13	49	2	0	226	47	35	0.0	0.4	0.15	318	181
				2.54	1.07	2.13	0.05	3.70	0.98	0.99	17	17	17	0.0	0.4	18

COASTAL PL OF LA CO HYDRO SUBUNIT U05A0
CENTRAL HYDRO SUBAREA U05A5
L A SAN GABRIEL RIVER HYDRO UNIT U0500

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million							Mineral constituents in parts per million						
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	I.D.S. Exp. 105°C	Total hardness as CaCO ₃
Date sampled				Co	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂	Computed	
L A SAN GABRIEL RIVER HYDRO UNIT U0500																	
COASTAL PL OF LA CO HYDRO SUBUNITU05A0																	
CENTRAL HYDRO SUBAREA U05A5																	
3S/11W-29H 2 S 7-16-64	--	7.9	480	43	15	35	2	0	232	21	27	0.0	0.2	0.14	--	250	169
				2.15	1.23	1.52	0.05	0	3.80	0.44	0.76					257	
				43	25	31	1		76	9	15						
3S/11W-29J 1 S 7-21-64	--	7.3	499	56	12	36	2	0	248	12	35	0.8	0.4	0.05	--	310	189
				2.79	0.99	1.57	0.05	0	4.06	0.25	0.99	0.01				276	
				52	18	29	1		76	5	19						
3S/11W-29R 4 S 7-23-64	72	7.7	357	32	9	37	2	0	192	24	10	0.0	0.5	0.06	27	220	117
				1.60	0.74	1.61	0.05	0	3.15	0.50	0.28					236	
				40	19	40	1		80	13	7						
3S/11W-30H 3 S 7-21-64	--	7.8	643	86	16	31	3	0	301	58	37	1.0	0.5	0.03	31	411	281
				4.29	1.32	1.35	0.08	0	4.93	1.21	1.04	0.02				412	
				61	19	19	1		68	17	14						
3S/11W-30K 2 S 12-17-63	66	7.5	355	44	6	26	2	0	191	29	12	0.0	--	--	--	213	135
				2.20	0.49	1.13	0.05	0	3.13	0.60	0.34						
				57	13	29	1		77	15	8						
3S/12W-3M 1 S 8-11-64	79	7.9	814	77	23	64	4	0	182	185	63	6.6	--	--	--	512	287
				3.84	1.89	2.78	0.10	0	2.98	3.85	1.78	0.11					
				45	22	32	1		34	44	20	1					
3S/12W-5M 1 S 10- 2-63	64	7.6	655	89	17	32	3	0	257	94	39	8.0	--	--	--	292	
				4.44	1.40	1.99	0.08	0	4.21	1.96	1.10	0.13					
				61	19	19	1		57	26	15	2				408	
8-11-64	66	8.0	684	90	19	30	3	0	254	98	34	12.4	--	--	--	303	
				4.49	1.56	1.30	0.08	0	4.16	2.04	0.96	0.20					
				60	21	17	1		57	28	13	3				411	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million										Mineral constituents in parts per million							
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	I.D.S. Evap. I.D.S. Evap. I.D.S. Evap.	Total Hardness as CaCl ₂				
Date sampled				Ca	Mg	Na	K	CO ₃	HCO ₃	SU ₄	Cl	NO ₃	F	B	SiO ₂	SO ₂	CO ₂	SO ₄	CO ₃	CO ₃	
L A SAN GABRIEL RIVER HYDRO UNIT U0500																					
COASTAL PL OF LA CO HYDRO SUBUNITU05A0																					
CENTRAL HYDRO SUBAREA U05A5																					
3S/12W-8F 1 S	--	7.7	520	47	19	40	2	0	244	46	21	7.2	0.2	0.08	19	306	196				
11-22-63				2.35 41	1.56 27	1.74 31	0.05	0	4.00 71	0.96 17	0.59 10	0.12 2									
4-14-64	70	7.4	475	57	10	42	2	0	245	45	21	7.8	0.2	0.14	20	342	183				
				2.84 51	0.82 15	1.83 33	0.05	1	4.02 71	0.94 17	0.59 10	0.13 2									
3S/12W-17L 3 S	69	7.6	476	64	10	24	3	0	249	25	22	1.0	0.5	0.07	25	301	201				
7-16-64				3.19 62	0.82 16	1.04 20	0.08	2	4.08 78	0.52 10	0.62 12	0.02									
3S/12W-18G 2 S	58	7.8	621	74	15	42	3	0	287	59	36	1.0	0.6	0.11	27	400	246				
7-16-64				3.69 54	1.23 27	1.83 27	0.08	1	4.70 67	1.23 18	1.02 15	0.02									
3S/12W-25K 1 S	--	8.1	435	40	21	25	2	0	268	14	9	0.0	0.2	0.08	19	258	195				
11-22-63				2.00 40	1.89 38	1.09 22	0.05	1	4.39 89	0.29 6	0.25 5										
4-14-64	74	7.8	450	53	16	25	2	0	268	12	11	0.0	0.1	0.07	18	260	198				
				2.64 52	1.32 26	1.09 21	0.05	1	4.39 89	0.25 5	0.31 6										
3S/12W-26L 2 S	--	7.6	474	65	12	22	3	0	255	30	18	0.0	0.6	0.08	26	290	212				
7-21-64				3.24 61	0.99 19	0.96 18	0.05	2	4.18 79	0.62 12	0.51 10										
3S/12W-26Q 3 S	--	7.8	650	67	29	29	2	0	274	57	41	0.0	0.2	0.12	--	358	286				
7-16-64				3.34 48	2.38 34	1.26 18	0.05	1	4.49 66	1.19 17	1.16 17										

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million percent reactance value				Mineral constituents in parts per million				
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total Dissolved Solids TDS
3S/12W-30C 3 S 11-13-63	--	8.3	492	56	9	43	2	0	240	47	32	0.0	--	--	177	
				2.79	0.74	1.87	0.05	3.93	0.98	0.90	17	15	307			
4- 8-64	--	8.3	483	53	10	40	2	0	233	38	18	0.0	--	--	173	
				2.64	0.82	1.74	0.05	3.82	0.79	0.51	15	10	276			
3S/12W-33A 1 S 11-21-63	--	8.0	390	47	10	23	3	0	210	20	9	0.0	0.4	0.13	250	
				2.35	0.82	1.00	0.08	3.44	0.42	0.25	6	6	237			
4-14-64	66	7.7	380	55	8	22	3	0	244	13	7	0.0	0.2	0.09	170	
				2.74	0.66	0.96	0.08	4.00	0.27	0.20	4	4	251			
3S/12W-35B 4 S 7- 6-64	65	7.7	529	74	12	24	3	0	269	42	21	0.6	0.5	0.07	234	
				3.69	0.99	1.04	0.08	4.41	0.87	0.59	15	10	336			
3S/12W-35B 5 S 7-16-64	--	7.6	600	51	33	27	2	0	292	44	27	0.0	0.2	0.16	263	
				2.54	2.71	1.17	0.05	4.79	0.92	0.76	14	12	328			
3S/13W- 20 1 S 11- 7-63	--	7.5	790	86	28	53	4	0	272	139	62	0.0	0.6	0.25	330	
				4.29	2.30	2.30	0.10	4.46	2.89	1.75	32	19	528			
3S/13W-11E 1 S 8-12-64	68	8.2	530	50	14	43	2	0	226	48	29	4.7	--	--	183	
				2.50	1.15	1.87	0.05	3.70	1.00	0.82	18	15	302			

COASTAL PL OF LA CO HYDRO SUBUNIT U05A0

U05A5

L A SAN GABRIEL RIVER HYDRO UNIT U0500

CENTRAL HYDRO SUBAREA

TABLE E-1
 MINERAL ANALYSES OF GROUND WATER 1963/64
 LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million						Mineral constituents in parts per million					Mineral constituents in parts per million			
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	Total dissolved solids	Barium	Strontium
Date sampled				Co	Mg	No	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂	Computed	Co ₂ SO ₃	
L A SAN GABRIEL RIVER HYDRO UNIT U0500																		
COASTAL PL OF LA. CO. HYDRO SUBUNITU05A0																		
CENTRAL HYDRO SUBAREA U05A5																		
35/13W-1-011 S	66	7.7	512	58	13	40	2	0	245	49	26	2.0	--	--	--	198		
10-2-63				2.89	1.07	1.74	0.05		4.02	1.02	0.73	0.03				310		
				50	19	30	1		69	18	13	1						
8-12-64	70	8.1	598	64	16	43	2	0	250	65	29	5.7	--	--	--	226		
				3.19	1.32	1.87	0.05		4.10	1.35	0.82	0.09				348		
				50	21	29	1		64	21	13	1						
35/13W-20H 3 S	72	8.1	470	34	19	46	4	0	232	46	22	0.0	0.2	0.15	19	314	163	
11-20-63				1.70	1.56	2.00	0.10		3.80	0.96	0.62		0.2	0.14	21	300	164	
				32	29	37	2		71	18	12					304		
4-21-64	--	7.8	480	39	16	47	3	0	233	46	22	0.0	0.2	0.14	21	300	164	
				1.95	1.32	2.04	0.08		3.82	0.96	0.62					309		
				36	24	38	1		71	18	11							
35/13W-25G 2 S	--	8.0	745	80	18	53	3	0	253	118	46	4.0	--	--	--	274		
8-12-64				3.99	1.48	2.30	0.08		4.15	2.46	1.30	0.06				446		
				51	19	29	1		52	31	16	1						
35/13W-34H 2 S	--	7.6	500	55	14	47	2	0	197	84	41	0.0	0.2	0.15	15	352	195	
11-21-63				2.74	1.15	2.04	0.05		3.23	1.75	1.16					355		
				46	19	34	1		53	29	19							
4-14-64	73	7.6	540	48	19	50	2	0	207	67	52	0.0	0.2	0.14	19	362	198	
				2.40	1.56	2.17	0.05		3.39	1.39	1.47					359		
				39	25	35	1		54	22	24							
35/13W-35K 4 S	--	8.2	976	124	20	78	--	0	306	156	104	0.0	--	--	--	392		
11-13-63				6.19	1.64	3.39			5.02	3.35	2.93					632		
				55	15	30			45	29	26							

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number Date sampled	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				Mineral constituents in parts per million				Mineral constituents in parts per million					
				Calcium Co	Magne-sium Mg	Sodium No	Potas-sium K	Carbon-ate CO ₃	Bicar-bonate HCO ₃	Sulfate SO ₄	Chlo-ride Cl	Ni-trate NO ₃	Fluo-ride F	Boron B	Sin-co co	SiO ₂	Total Hardness CaCO ₃
3S/13W-35K 4 S 4- 7-64	--	8.1	854	117 5.84 55	18 1.48 14	75 3.26 31	0.08	3 1	0	297 4.87 46	154 3.21 31	85 2.40 23	0.0	--	--	598	366
4S/11W- 5E 2 S 7-21-64	69	7.9	412	42 2.10 46	9 0.74 16	38 1.65 36	2	0	219 3.59 78	29 0.60 13	13 0.37 8	2.0 0.03 1	0.5	0.07	24	263	142
4S/11W- 5M 2 S 4- 7-64	64	8.0	410	45 2.25 49	9 0.74 16	36 1.57 34	2	0	238 3.90 83	30 0.62 13	7 0.20 4	0.0	0.2	0.14	18	274	150
4S/11W- 5N 1 S 4- 7-64	57	8.0	345	34 1.70 45	6 0.49 13	35 1.52 40	3	0	205 3.36 88	4 0.08 2	14 0.39 10	0.0	0.2	0.14	4	284	110
4S/11W- 6N 3 S 4-21-64	--	7.2	417	52 2.59 75	4 0.33 10	12 0.52 15	--	0	161 2.64 77	17 0.35 10	16 0.45 13	0.0	--	--	--	180	146
4S/12W- 1G 1 S 7-16-64	--	8.0	490	54 2.69 51	17 1.40 27	25 1.09 21	2	0	261 4.28 83	21 0.44 9	15 0.42 8	0.0	0.1	0.14	--	276	205
4S/12W- 2A 5 S 7- 6-64	--	7.8	475	64 3.19 61	12 0.99 19	23 1.00 19	2	0	264 4.33 81	25 0.52 10	16 0.45 8	1.0 0.02	0.5	0.06	25	298	209
4S/12W- 5H 1 S 9- 2-64	--	8.1	417	52 2.59	8 0.66	31 1.35	3	0	216 3.54	4 0.08	40 1.15	--	--	--	20	298	163

COASTAL PL OF LA CO HYDRO SUBUNITU05A0 U05A5
CENTRAL HYDRO SUBAREA

L A SAN GABRIEL RIVER HYDRO UNIT U0500

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million reactance value							Mineral constituents in parts per million						
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Barium	Silica	Total Hardness	
Date sampled				Co	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	Ba	SiO ₂	Total Hardness	
COASTAL PL OF LA CO HYDRO SUBUNIT U05A0																	
CENTRAL HYDRO SUBAREA U05A5																	
4S/12W-6D 1 S 10-1-63	--	8.2	465	44 2.20	6 0.49	44 1.91	3 0.08	3	0	200 3.28	36 0.75	30 0.85	--	--	22	135	
10-29-63	--	8.2	423	34 1.70	5 0.41	36 1.57	3 0.08	--	173 2.84	32 0.67	25 0.71	--	--	20	106		
17-3-63	--	8.1	425	38 1.90	4 0.33	35 1.52	2 0.05	0	170 2.79	4 0.08	23 0.65	--	--	21	112		
17-31-63	--	8.0	430	40 2.00	5 0.41	47 2.04	2 0.05	0	176 2.88	29 0.60	26 0.73	--	--	23	121		
1-28-64	--	8.1	430	40 2.00	4 0.33	49 2.13	3 0.08	0	174 2.85	32 0.67	22 0.62	--	--	20	117		
3-3-64	--	8.1	450	37 1.85	5 0.41	50 2.17	3 0.08	0	173 2.84	27 0.56	21 0.59	--	--	21	113		
3-31-64	--	8.2	422	35 1.75	5 0.41	52 2.26	3 0.08	0	171 2.80	30 0.62	23 0.65	--	--	21	108		
4-28-64	--	8.1	450	40 2.00	5 0.41	45 1.96	3 0.08	0	174 2.85	37 0.77	22 0.62	--	--	22	121		

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million reagentance value				Mineral constituents in parts per million				
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Bicarbonate HCO ₃	Sulfate SO ₄	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total Dissolved Solids TDS	Total hardness as CaCO ₃	
COASTAL PL. OF LA. CO. HYDRO SUBUNIT U05A0																
CENTRAL HYDRO SUBAREA U05A5																
L A SAN GABRIEL RIVER HYDRO UNIT U0500																
4S/12W-6D 1 S 6-1-64	--	8.1	465	45 2.25	5 0.41	50 2.17	3 0.08	0	184 3.02	37 0.77	25 0.71	--	--	23	204	133
6-30-64	--	8.0	455	43 2.15	4 0.33	51 2.22	3 0.08	0	193 3.16	15 0.31	24 0.68	--	--	21	292	124
8-4-64	--	8.2	455	44 2.20	5 0.41	48 2.09	3 0.08	0	189 3.10	23 0.48	26 0.73	--	--	21	235	131
9-1-64	--	8.3	475	46 2.30	5 0.41	56 2.43	3 0.08	0	194 3.18	29 0.60	17 0.48	--	--	20	340	136
9-29-64	--	8.4	466	44 2.20	5 0.41	45 1.96	2 0.05	4 0.13	183 3.00	40 0.83	25 0.71	--	--	17	278	131
4S/12W-6D 3 S 1-13-64	--	8.2	--	29 1.45	3 0.25	46 2.00	2 0.05	0	160 2.62	21 0.44	20 0.56	--	--	22	220	85
3-4-64	--	8.2	360	30 1.50	3 0.25	53 2.30	2 0.05	0	154 2.52	20 0.42	19 0.54	--	--	20	228	88
3-31-64	--	8.0	536	40 2.00	7 0.58	53 2.30	3 0.08	0	209 3.43	36 0.75	33 0.93	--	--	21	333	129

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million										Mineral constituents in parts per million				
				Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Iron Fe	Copper Cu	Total hardness as CaCO ₃
COASTAL PL OF LA CO HYDRO SUBUNIT U05A0																		
CENTRAL HYDRO SUBAREA U05A5																		
45/12W-6D 3 S 4-28-64	--	8.0	519	51 2.54	5 0.41	50 2.17	0.08	3	0	205 3.36	31 0.65	30 0.85	--	--	--	148		
6-1-64	--	8.2	385	30 1.50	3 0.25	48 2.09	0.05	2	0	163 2.67	31 0.65	19 0.54	--	--	22	88		
6-30-64	--	8.1	395	31 1.55	3 0.25	50 2.17	0.05	2	0	166 2.72	20 0.42	19 0.54	--	--	21	90		
8-4-64	--	8.2	388	33 1.65	4 0.33	48 2.09	0.05	2	0	168 2.75	30 0.62	20 0.56	--	--	19	99		
9-1-64	--	8.3	408	34 1.70	4 0.33	53 2.30	0.08	3	0	170 2.79	15 0.31	13 0.37	--	--	19	102		
9-29-64	--	8.4	394	35 1.75	4 0.33	45 1.96	0.05	2	2	170 2.79	28 0.58	21 0.59	--	--	17	104		
45/12W-6J 1 S 6-30-64	--	8.6	382	10 0.50	2 0.16	72 3.13	0.03	1	7	168 2.75	11 0.23	31 0.87	--	--	19	33		
8-4-64	--	8.4	385	10 0.50	3 0.25	70 3.04	0.03	1	1	176 2.88	4 0.08	34 0.96	--	--	18	38		

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million percent reactance value				Mineral constituents in parts per million					
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total Dissolved Solids TDS	Total Hardness Hardness	
L A SAN GABRIEL RIVER HYDRO UNIT U0500																	
COASTAL PL OF LA CO HYDRO SUBUNITU05A0																	
CENTRAL HYDRO SUBAREA U05A5																	
4S/12W-6J 1 S 9-1-64	--	8.6	370	10 0.50	1 0.08	75 3.26	0.03	1	7	167 2.74	15 0.31	22 0.62	--	--	19	246	29
4S/12W-6J 2 S 12-3-63	--	8.5	370	12 0.60	1 0.08	62 2.70	0.03	1	5	161 2.64	10 0.21	27 0.76	--	--	20	232	34
12-31-63	--	8.6	350	12 0.60	3 0.25	64 2.78	0.03	1	7	159 2.61	10 0.21	26 0.73	--	--	20	266	43
1-28-64	--	8.6	375	12 0.60	3 0.25	62 2.70	0.03	1	7	161 2.64	14 0.29	28 0.79	--	--	19	226	43
3-3-64	--	8.5	365	12 0.60	1 0.08	70 3.04	0.03	1	5	165 2.70	14 0.29	28 0.79	--	--	19	235	34
3-31-64	--	8.6	382	11 0.55	1 0.08	73 3.17	0.03	1	6	159 2.61	8 0.17	29 0.82	--	--	19	233	32
4-28-64	--	8.6	370	13 0.65	3 0.25	66 2.87	0.03	1	7	161 2.64	10 0.21	27 0.76	--	--	19	215	45
4S/12W-6K 2 S 10-1-63	--	8.6	340	15 0.75	2 0.16	54 2.35	0.03	1	7	146 2.39	8 0.17	20 0.56	--	--	18	214	46

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million						parts per million equivalents per percent					Mineral constituents in parts per million				
				Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron b	Silica SiO ₂	I.D.S. Expt. 105°C Expt. 105°C Computed Col. 13	Total hardness as CaCO ₃		
COASTAL PL OF LA CO HYDRO SUBUNIT U05A0																			
CENTRAL HYDRO SUBAREA U05A5																			
45/12W-6K 2 S 6-1-64	--	8.6	345	10 0.50	2 0.16	61 2.65	0.03	1 0.20	6 0.20	146 2.39	6 0.12	21 0.59	--	--	19	33			
6-30-64	--	8.5	345	14 0.70	4 0.33	60 2.61	0.03	1 0.07	2 0.07	159 2.61	21 0.44	18 0.51	--	--	18	52			
8-4-64	--	8.5	380	23 1.15	3 0.25	54 2.35	0.05	2 0.07	2 0.07	168 2.75	20 0.42	13 0.37	--	--	17	70			
9-1-64	--	8.7	340	8 0.40	1 0.08	61 2.65	0.03	1 0.23	7 0.23	149 2.44	18 0.37	7 0.20	--	--	20	24			
9-29-64	--	8.8	339	15 0.75	1 0.08	54 2.35	0.03	1 0.43	13 0.43	137 2.25	20 0.42	20 0.56	--	--	18	42			
45/12W-7H 1 S 4-22-64	75	8.5	344	21 1.05 29	2 0.16	54 2.35	0.03	1 0.03	0 0.03	178 2.92 87	0 0.45 13	16 0.45 13	0.0	--	--	61			
45/12W-8D 2 S 9-2-64	--	8.5	355	38 1.90	4 0.33	37 1.61	0.05	2 0.07	2 0.07	177 2.90	4 0.08	7 0.20	--	--	21	112			
45/12W-1JA 2 S 11-21-63	--	8.3	390	42 2.10 48	11 0.90 21	30 1.30 30	0.05	2 0.07 1	2 0.07 2	211 3.46 80	22 0.46 11	11 0.31 7	0.0	0.4	11	150			

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				Mineral constituents in parts per million				Mineral constituents in parts per million						
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fos- phate P	Borax B	Sul- fate SO ₂	IO ₃ Extr. Extr. 105°C	Total Hardness as CaCO ₃	
COASTAL PL OF LA CO HYDRO SUBUNIT U05A0																		
CENTRAL HYDRO SUBAREA U05A5																		
L A SAN GABRIEL RIVER HYDRO UNIT U0500																		
4S/12W-10A 2 S 4-14-64	68	7.9	350	44 2.20	11 0.90	24 1.04	0.05	2	0	223 3.65	13 0.27	8 0.23	0.0	0.2	0.10	20	254 232	155
4S/12W-10G 1 S 11-21-63	69	8.3	450	48 2.40	6 0.49	36 1.57	0.08	3	1	211 3.46	36 0.75	13 0.37	0.0	0.2	0.18	13	242 260	145
4-14-64	69	8.0	370	41 2.05	10 0.82	36 1.57	0.08	3	0	215 3.52	18 0.37	14 0.39	0.0	0.4	0.12	17	236 245	144
4S/12W-11B 3 S 9- 2-64	--	8.2	360	46 2.30	6 0.49	27 1.17	0.08	3	0	201 3.29	8 0.17	5 0.14	--	--	--	20	144	140
4S/12W-120 1 S 7- 6-64	--	7.9	421	62 3.09	7 0.58	23 1.00	0.05	2	0	260 4.26	12 0.25	8 0.23	1.0 0.02	0.4	0.07	27	272 270	184
4S/12W-13C 1 S 10- 1-63	--	8.0	365	46 2.30	4 0.33	22 0.96	0.05	2	0	203 3.33	12 0.25	7 0.20	--	--	--	20	233	132
10-29-63	--	8.0	375	39 1.95	8 0.66	17 0.74	0.08	3	--	204 3.34	6 0.12	8 0.23	--	--	--	20	204	131
12- 3-63	--	7.9	375	48 2.40	7 0.58	19 0.83	0.05	2	0	199 3.26	13 0.27	8 0.23	--	--	--	24	229	149

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million reactance value				Mineral constituents in parts per million				
				Calcium Mg	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Sulfur dioxide SO ₂	Total Hardness as CaCO ₃
4S/12W-13C 1 S 12-31-63	--	7.9	360	48 2.40	7 0.58	24 1.04	3 0.08	0	199 3.26	13 0.27	8 0.23	--	--	23	274	149
1-28-64	--	7.9	355	49 2.45	7 0.58	24 1.04	2 0.05	0	203 3.33	16 0.33	8 0.23	--	--	21	222	152
3- 3-64	--	7.8	355	49 2.45	7 0.58	27 1.17	3 0.08	0	199 3.26	0	7 0.20	--	--	21	220	152
3-31-64	--	7.9	376	46 2.30	7 0.58	28 1.22	3 0.08	0	200 3.28	15 0.31	7 0.20	--	--	23	238	144
4S/12W-13C 3 S 5- 1-64	--	8.2	325	45 2.25	3 0.25	30 1.30	2 0.05	0	199 3.26	16 0.33	7 0.20	--	--	24	211	125
8- 4-64	--	8.0	375	47 2.35	4 0.33	31 1.35	3 0.08	0	198 3.25	13 0.27	7 0.20	--	--	21	209	134
8-27-64	--	7.9	355	46 2.30	4 0.33	31 1.35	2 0.05	0	195 3.20	11 0.23	8 0.23	--	--	19	252	132
4S/12W-13D 3 S 9- 1-64	--	8.1	375	48 2.40	5 0.41	30 1.30	3 0.08	0	209 3.43	5 0.10	6 0.17	--	--	21	240	141

L A SAN GABRIEL RIVER HYDRO UNIT U0500

COASTAL PL OF LA. CO HYDRO SUBUNITU05A0

CENTRAL HYDRO SUBAREA

U05A5

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in				parts per million equivalents per million percent reactance value				Mineral constituents in parts per million				
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fuo- ride F	Boron B	Silic- co SiO ₂	Total hardness as CaCO ₃
4S/12W-13D 3 S 9-29-64	--	8.2	262	46 2.30	6 0.49	28 1.22	2 0.05	0	209 3.43	14 0.29	5 0.14	--	--	18	236	140
4S/12W-13N 2 S 3-31-64	--	8.4	383	21 1.05	2 0.16	62 2.70	2 0.05	2 0.07	161 2.64	22 0.46	14 0.39	--	--	19	238	61
4-28-64	--	8.4	375	23 1.15	3 0.25	53 2.30	2 0.05	2 0.07	163 2.67	21 0.44	13 0.37	--	--	20	198	70
6- 1-64	--	8.4	385	23 1.15	3 0.25	56 2.43	2 0.05	2 0.07	161 2.64	22 0.46	13 0.37	--	--	21	246	70
6-30-64	--	8.3	365	23 1.15	3 0.25	56 2.43	2 0.05	0	170 2.79	19 0.40	12 0.34	--	--	19	255	70
4S/12W-14A 2 S 10- 1-63	--	7.9	350	44 2.20	5 0.41	22 0.96	2 0.05	0	189 3.10	14 0.29	7 0.20	--	--	19	230	131
12- 3-63	--	7.9	365	46 2.30	6 0.49	20 0.87	2 0.05	0	185 3.03	20 0.42	9 0.25	--	--	24	222	140
12-31-63	--	7.8	355	47 2.35	5 0.41	25 1.09	3 0.08	0	189 3.10	13 0.27	8 0.23	--	--	21	262	138

L A SAN GABRIEL RIVER HYDRO UNIT U0500

COASTAL PL OF LA CO HYDRO SUBUNITU05A0
CENTRAL HYDRO SUBAREA

U05A5

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in						parts per million equivalents per million reagent value				Mineral constituents in parts per million			
				Calcium C o	Magne- sium M g	Sodium N a	Potas- sium K	Carbon- ate C O ₃	Bicar- bonate H C O ₃	Sulfate S O ₄	Chlo- ride C l	Ni- trate N O ₃	F u o r i d e F	B u r o n B	S i l i- c o S i O ₂	I . O . c o C o m p o u n d s	Total hardness C a l c i u m
L A SAN GABRIEL RIVER HYDRO UNIT U0500																	
COASTAL PL OF LA CO HYDRO SUBUNITU05A0																	
CENTRAL HYDRO SUBAREA U05A5																	
4S/12W-14A 2 S 1-28-64	--	7.9	355	47 2.35	6 0.49	25 1.09	3 0.08	0	192 3.15	16 0.33	8 0.23	--	--	19	214	142	
4-28-64	--	7.9	355	48 2.40	6 0.49	24 1.04	3 0.08	0	193 3.16	22 0.46	7 0.20	--	--	22	190	145	
6-30-64	--	7.9	375	42 2.10	5 0.41	27 1.17	3 0.08	0	192 3.15	11 0.23	6 0.17	--	--	19	240	126	
8- 4-64	--	8.0	375	48 2.40	5 0.41	28 1.22	3 0.08	0	190 3.11	21 0.44	8 0.23	--	--	19	210	141	
9- 1-64	--	8.0	370	48 2.40	5 0.41	29 1.26	3 0.08	0	193 3.16	10 0.21	6 0.17	--	--	18	242	141	
4S/12W-14C 2 S 10- 1-63	--	8.9	320	5 0.25	1 0.08	64 2.78	1 0.03	17 0.57	126 2.07	8 0.17	21 0.59	--	--	18	221	17	
10-29-63	--	8.9	315	6 0.30	2 0.16	50 2.17	1 0.03	12 0.40	134 2.20	7 0.15	22 0.62	--	--	18	324	23	
6- 3-64	--	8.9	315	11 0.55	1 0.08	63 2.74	1 0.03	11 0.37	133 2.18	6 0.12	20 0.56	--	--	20	204	32	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million equivalents per million reagent value										Mineral constituents in parts per million				
				Calcium Mg	Magnesium	Sodium No	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total hardness as CaCO ₃		
4S/12W-14C 2 S 6-30-64	--	8.9	320	5 0.25	1 0.08	62 2.70	1 0.03	12 0.40	134 2.20	11 0.23	18 0.51	--	--	17	223	17		
	--	8.9	318	6 0.30	1 0.08	63 2.74	1 0.03	11 0.37	134 2.20	5 0.10	21 0.59	--	--	18	181	19		
	--	9.0	325	6 0.30	1 0.08	67 2.91	1 0.03	10 0.33	137 2.25	10 0.21	21 0.59	--	--	17	212	19		
9-29-64	--	9.2	314	6 0.30	2 0.16	58 2.52	1 0.03	14 0.47	129 2.11	9 0.19	19 0.54	--	--	18	221	23		
	--	8.4	310	23 1.15	3 0.25	32 1.39	2 0.05	2 0.07	142 2.33	10 0.21	9 0.25	--	--	19	204	70		
12-13-63	--	8.4	300	23 1.15	3 0.25	34 1.48	2 0.05	2 0.07	144 2.36	11 0.23	8 0.23	--	--	20	208	70		
	--	8.2	300	30 1.50	3 0.25	37 1.61	2 0.05	0	159 2.61	13 0.27	9 0.25	--	--	21	243	88		
1-28-64	--	8.2	300	30 1.50	4 0.33	36 1.57	2 0.05	0	165 2.70	22 0.46	8 0.23	--	--	19	189	92		

COASTAL PL OF LA CO HYDRO SUBUNITU05A0
CENTRAL HYDRO SUBAREA U05A5
L A SAN GABRIEL RIVER HYDRO UNIT U0500

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million						Mineral constituents in parts per million						
				Calcium Co	Magnesium Mg	Sodium No	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total Dissolved Solids (TDS) Computed
L A SAN GABRIEL RIVER HYDRO UNIT U0500																
COASTAL PL OF LA CO HYDRO SUBUNIT U05A0																
CENTRAL HYDRO SUBAREA U05A5																
4S/12W-14C 5 S 3- 3-64	--	8.0	320	32 1.60	4 0.33	35 1.52	2 0.05	0	163 2.67	13 0.27	7 0.20	--	--	19	182	97
3-31-64	--	8.1	325	30 1.50	5 0.41	33 1.43	2 0.05	0	163 2.67	12 0.25	7 0.20	--	--	20	208	96
4-28-64	--	8.1	300	33 1.65	4 0.33	31 1.35	2 0.05	0	166 2.72	15 0.31	7 0.20	--	--	20	166	99
4S/12W-16R 1 S 3- 3-64	--	8.4	300	20 1.00	2 0.16	47 2.04	2 0.05	2 0.07	153 2.51	8 0.17	11 0.31	--	--	18	166	58
3-31-64	--	8.4	309	20 1.00	2 0.16	50 2.17	2 0.05	2 0.07	151 2.47	8 0.17	11 0.31	--	--	19	228	58
4S/12W-17E 1 S 8- 4-64	--	8.7	358	10 0.50	1 0.08	65 2.83	1 0.03	7 0.23	167 2.74	5 0.10	23 0.65	--	--	16	207	29
9- 1-64	--	8.8	355	10 0.50	2 0.16	74 3.22	1 0.03	7 0.23	167 2.74	18 0.37	15 0.42	--	--	20	237	33
9-29-64	--	9.0	308	10 0.50	3 0.25	65 2.83	1 0.03	19 0.63	148 2.43	7 0.15	21 0.59	--	--	18	230	38

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million reagent value				Mineral constituents in parts per million								
				Calcium Mg	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fuc- ride F	Boron B	Sil- ico SiO ₂	I.O.S. Evap 105°C Completed
COASTAL PL OF LA CO HYDRO SUBUNITU05A0 CENTRAL HYDRO SUBAREA U05A5																
4S/12W-17P 3 S 6- 1-64	--	8.6	335	12 0.60	2 0.16	60 2.61	1 0.03	6 0.20	144 2.36	12 0.25	24 0.68	--	--	18	203	38
6-30-64	--	8.6	340	11 0.55	3 0.25	62 2.70	1 0.03	7 0.23	150 2.46	12 0.25	23 0.65	--	--	17	205	40
4S/12W-20J 4 S 8- 4-64	--	8.6	384	8 0.40	1 0.08	72 3.13	1 0.03	6 0.20	183 3.00	10 0.21	20 0.56	--	--	16	210	24
9- 1-64	--	8.8	380	9 0.45	3 0.25	80 3.48	1 0.03	8 0.27	185 3.03	6 0.12	13 0.37	--	--	19	259	35
9-29-64	--	8.9	364	8 0.40	2 0.16	70 3.04	1 0.03	12 0.40	178 2.92	23 0.48	5 0.14	--	--	20	260	28
4S/12W-22Q 3 S 7-15-64	--	8.5	372	16 0.80 20	4 0.33 8	67 2.91 71	2 0.05 1	0 0.00	198 3.25 82	0	25 0.71 18	0.0	--	--	211	57
4S/12W-22Q 4 S 7- 1-64	--	8.3	358	16 0.80 21	5 0.41 11	58 2.52 66	4 0.10 3	0	180 2.95 80	0	26 0.73 20	0.0	--	--	198	61
4S/12W-22Q 5 S 5- 8-64	--	8.4	1670	162 8.08 45	39 3.21 18	153 6.65 37	6 0.15 1	0	356 5.83 32	277 5.77 32	236 6.66 36	0.0	--	--	1048	565

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million							Mineral constituents in parts per million				
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fuo- ride F	Boron B	Sili- ca SiO ₂
L A SAN GABRIEL RIVER HYDRO UNIT U0500															
COASTAL PL OF LA CO HYDRO SUBUNITU05A0															
CENTRAL HYDRO SUBAREA U05A5															
4S/12W-25P 1 S 7-29-64	--	7.8	1550	130 6.49 39	33 2.71 16	166 7.22 44	4 0.10 1	0	388 6.36 38	269 5.60 34	164 4.62 28	0.0	--	--	460
4S/12W-28H 1 S 11-21-63	--	8.3	340	0.35 7 9	0.08 1 2	3.35 77 88	0.03 1 2	0.07 2 2	192 3.15 82	10 0.21 5	15 0.42 11	0.0	0.6	11	22
4-14-64	78	7.9	350	22 1.10 28	0.08 2 2	62 2.70 69	2 0.05 1	0	179 2.93 76	14 0.29 8	22 0.62 16	0.0	0.4	14	59
4S/12W-35A 1 S 9- 1-64	--	8.1	5500	652 32.53 60	90 7.40 14	325 14.13 26	9 0.23	0	71 1.16 2	184 3.83 7	1740 49.07 91	0.0	--	--	1998
4S/12W-35H 2 S 7-23-64	--	7.8	4950	625 31.19 64	84 6.91 14	235 10.22 21	7 0.18	0	128 2.10 4	87 1.81 4	1560 43.99 92	0.0	--	--	1907
4S/12W-35H 4 S 8-31-64	--	8.3	29900	1280 63.87 18	582 47.86 13	5750 250.01 69	35 0.89	0	163 2.67 1	1630 33.94 9	11500 324.30 90	0.0	--	--	5591
4S/12W-35J 1 S 9- 3-64	--	8.3	42400	808 40.32 8	931 76.57 16	8500 369.58 75	135 3.45 1	0	184 3.02 1	2200 45.80 9	15500 437.10 90	0.0	--	--	5849
4S/12W-35J 2 S 8-28-64	--	8.2	36500	848 42.32 10	795 65.38 15	7250 315.23 74	125 3.20 1	0	202 3.31 1	1810 37.68 9	13600 383.52 90	0.0	--	--	5389

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million										Mineral constituents in parts per million				
				Calcium M.G.	Magnesium M.G.	Sodium No.	Potassium	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total Hardness CaCO ₃		
L A SAN GABRIEL RIVER HYDRO UNIT U0500																		
COASTAL PL OF LA CO HYDRO SUBUNITU05A0 U05A5																		
CENTRAL HYDRO SUBAREA																		
4S/12W-35J 4 S 7-27-64	--	8.3	34000	880 43.91 11	728 59.87 15	6700 291.32 73	1.92	0	218 3.57 1	1700 35.39 9	12500 352.50 90	0.0	--	--	5193			
4S/12W-35K 1 S 9-10-64	--	8.1	14600	1170 58.38 36	201 16.53 10	2000 86.96 54	0.41	0	130 2.13 1	868 18.07 11	5040 142.13 88	0.0	--	--	3748			
4S/12W-35K 3 S 9- 8-64	--	8.3	31800	924 46.11 13	672 55.27 15	6100 265.23 72	1.15	0	200 3.28 1	1860 38.73 11	11500 324.30 89	0.0	--	--	5073			
4S/12W-35R 4 S 9-15-64	--	8.4	28400	720 35.93 12	582 47.86 15	5180 225.23 73	1.59	0	212 3.47 1	1670 34.77 11	9880 278.62 88	0.0	--	--	4193			
4S/12W-35R 6 S 8-17-64	--	8.4	543	53 2.64 46	6 0.49 9	59 2.57 45	0.05	0	194 3.18 55	92 1.92 33	26 0.73 13	0.0	--	--	157			
4S/12W-35R 9 S 9-24-64	--	7.9	6890	679 33.88 51	54 4.44 7	630 27.39 42	0.20	0	78 1.28 2	296 6.16 9	2100 59.22 89	0.0	--	--	1918			
4S/12W-35R10 S 8-24-64	--	8.3	42000	560 27.94 5	1100 90.46 17	9150 397.84 76	280	0	242 3.97 1	2360 49.14 9	16900 476.58 90	0.0	--	--	5925			
4S/12W-35R11 S 9-16-64	--	8.3	36500	760 37.92 9	757 62.26 15	6900 300.01 75	1.92	0	210 3.44 1	1960 40.81 10	12400 349.68 89	0.0	--	--	5013			
															22955			

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				Mineral constituents in parts per million				Mineral constituents in parts per million				
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total Dissolved Solids TDS (USCC Computed)
L A SAN GABRIEL RIVER HYDRO UNIT U0500																
COASTAL PL OF LA CO HYDRO SUBUNITU05A0 U05A5																
CENTRAL HYDRO SUBAREA																
4S/12W-35R12 S 7-24-64	--	7.7	41200	612 30.54	1030 84.71	8600 373.93	135 3.45	0	250 4.10	2130 44.35	15600 439.92	--	--	--	5767	
8-19-64	--	7.9	43900	580 28.94	1150 94.58	9800 426.10	250 6.39	0	200 3.28	2510 52.26	17500 493.50	0.0	--	--	6181	31888
4S/12W-35R13 S 8- 5-64	--	8.2	1060	90 4.49	12 0.99	108 4.70	3 0.08	0	194 3.18	78 1.62	191 5.39	0.0	--	--	274	
4S/12W-36E 1 S 9-30-64	--	8.3	1310	125 6.24	18 1.48	110 4.78	4 0.10	0	164 2.69	58 1.21	314 8.85	0.0	--	--	386	577
4S/12W-36E 2 S 7-30-64	--	8.4	504	46 2.30	9 0.74	54 2.35	2 0.05	0	209 3.43	44 0.92	28 0.79	10.0	--	--	152	710
4S/12W-36M 2 S 9-29-64	--	8.0	34700	1060 52.89	775 63.74	6830 296.97	58 1.48	0	162 2.66	1880 39.14	13300 375.06	0.0	--	--	5836	296
4S/12W-36M 3 S 9-29-64	--	8.4	421	35 1.75	5 0.41	60 2.61	2 0.05	0	174 2.85	39 0.81	20 0.56	0.0	--	--	108	23983
4S/12W-36M 4 S 7-31-64	--	8.4	462	44 2.20	8 0.66	48 2.09	2 0.05	0	218 3.57	37 0.77	18 0.51	0.0	--	--	143	247
				44 4.4	13	42	1		74	16	11				264	

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos of 25°C)	Mineral constituents in				parts per million equivalents per million percent				Mineral constituents in parts per million				
				Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fugate F	Boron B	Silica SiO ₂	Total hardness as CaCO ₃
L A SAN GABRIEL RIVER HYDRO UNIT U0500																
COASTAL PL OF LA CO HYDRO SUBUNITU05A0																
CENTRAL HYDRO SUBAREA U05A5																
4S/12W-36N 1 S 9-22-64	--	7.9	3810	326 16*27 44	55 4*52 12	368 16*00 43	5 0*13	0	168 2*75 8	0	168 3*50 10	1070 30*17 83	0*0	--	--	1040
4S/12W-36N 2 S 9- 4-64	--	8.3	40000	536 26*75 5	83*88 17	8550 371*75 76	240 6*14 1	0	186 3*05 1	0	2250 46*85 9	15800 445*56 90	0*0	--	--	5536
4S/12W-36N 3 S 8-20-64	--	8.2	44200	536 26*75 5	1180 97*04 17	9800 426*10 77	255 6*52 1	0	217 3*56 1	0	2510 52*26 9	18000 507*60 90	0*0	--	--	6194
4S/12W-36N 4 S 8-14-64	--	8.3	455	48 2*40 50	5 0*41 9	44 1*91 40	2 0*05 1	0	202 3*31 70	0	31 0*65 14	28 0*79 17	0*0	--	--	141
5S/12W-1E 2 S 8-18-64	--	8.2	615	59 2*94 48	10 0*82 13	53 2*30 38	1 0*03	0	196 3*21 51	0	38 0*79 13	80 2*26 36	0*0	--	--	188
5S/12W-1E 3 S 8- 3-64	--	8.0	3790	223 11*13 30	57 4*69 13	450 19*57 54	46 1*18 3	0	313 5*13 14	0	211 4*39 12	970 27*35 74	0*0	--	--	792
5S/12W-2A 4 S 9-25-64	--	8.1	598	26 1*30 22	3 0*25 4	100 4*35 73	1 0*03 1	0	172 2*82 47	0	42 0*87 15	82 2*31 39	0*0	--	--	78
5S/12W-2A 5 S 9-18-64	--	8.1	39400	680 33*93 7	941 77*39 16	8400 365*23 76	135 3*45 1	0	178 2*92 1	0	2100 43*72 9	15000 423*00 90	0*0	--	--	5570

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million										Mineral constituents in parts per million				
				Calcium mg	Magnesium mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total Hardness as CaCO ₃	Evap. 180°C Computed	Evap. 105°C as CaCO ₃
COASTAL PL OF LA CO HYDRO SUBUNIT U05A0				L A SAN GABRIEL RIVER HYDRO UNIT U0500														
CENTRAL HYDRO SUBAREA				U05A5														
55/12W-2B9 S 9-23-64	--	8.1	28700	336 16.77 5	658 54.11 16	5950 258.71 77	185 4.73 1	0	2.88 1	176 32.06 10	1540 301.74 90	10700	0.0	--	--	19456	3547	
55/12W-2B12 S 9-23-64	--	8.1	41300	486 24.25 5	1030 84.71 17	8850 384.80 77	315 8.05 2	0	3.05 1	186 50.13 10	2408 451.20 89	16000	0.0	--	--	29180	5452	
55/12W-2C1 S 9-2-64	--	8.6	1880	184 9.18 47	34 2.80 14	170 7.39 38	3 0.08	0	2.33 12	142 7.87 41	378 9.02 47	320	0.0	--	--	1159	599	
55/12W-2F12 S 7-28-64	--	7.7	40100	1080 53.89 10	1060 87.17 16	9100 395.67 73	95 2.43	0	6.88 1	420 45.18 8	2170 485.04 90	17200	0.0	--	--	30912	7059	
55/12W-2H8 S 9-21-64	--	8.2	18200	1420 70.86 34	281 23.11 11	2640 114.79 55	26 0.66	0	2.46 1	150 17.05 8	819 186.12 91	6600	0.0	--	--	11860	4702	
55/12W-2H9 S 9-31-64	--	8.1	46300	608 30.34 5	1190 97.87 17	10500 456.54 77	240 6.14 1	0	3.72 1	227 56.01 10	2690 524.52 90	18600	0.0	--	--	33940	6416	
55/12W-11G4 S 8-4-64	--	7.7	21400	655 32.68 12	597 49.10 18	4200 182.62 68	130 3.32 1	--	5.26 2	321 17.49 7	840 242.80 91	8610	0.0	--	--	15190	4092	

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million										Mineral constituents in parts per million										
				equivalents per percent					reactance value					Fluoride F	Boron B	Silica SiO ₂	I.D.S. Evap. 105°C as Computed	Total hardness as CaCO ₃						
Date sampled	Ca	Mg	Na + K	SO ₄	Cl	NO ₃	F	B	SiO ₂	I.D.S. Evap. 105°C as Computed	Total hardness as CaCO ₃	Ca	Mg	Na + K	SO ₄	Cl	NO ₃	F	B	SiO ₂	I.D.S. Evap. 105°C as Computed	Total hardness as CaCO ₃		
L A SAN GABRIEL RIVER HYDRO UNIT U0500																								
SAN FERNANDO HYDRO SUBUNIT U05B0																								
SAN FERNANDO HYDRO SUBAREA U05B1																								
1N/13W-24P 2 S 12-20-63	567 28.29 82	30 2.47 7	87 3.78 11	0 29.93 85	6 0.15	0 1826 29.93	5 0.10	177 4.99 14	0.0	0.33	52	1452	1539											
9- 3-64	95 4.74 18	207 17.02 65	98 4.26 16	0 20.64 77	13 0.33 1	0 1259 20.64	6 0.12	209 5.89 22	0.0	0.40	--	1460	1089											
1N/13W-26L 1 S 1-28-64	134 6.69 47	67 5.51 39	46 2.00 14	0 5.39 37	1 0.03	0 329 5.39	264 5.50 38	106 2.99 21	31.0 0.50 3	0.09	29	980	610											
1N/14W- 6P 2 S 7-15-64	54 2.69 59	13 1.07 23	17 0.74 16	0 3.25 71	3 0.08 2	0 198 3.25	35 0.73 16	16 0.45 10	9.0 0.15 3	0.15	--	292	188											
1N/14W- 9D 2 S 10-16-63	50 2.50 44	22 1.81 32	29 1.26 22	0 3.70 67	3 0.08 1	0 226 3.70	72 1.50 27	11 0.31 6	2.1 0.03 1	0.14	23	326	216											
1N/14W-14B 1 S 10-14-63	44 2.20 43	16 1.32 26	36 1.57 30	0 3.56 70	3 0.08 2	0 217 3.56	44 0.92 18	19 0.54 11	3.4 0.05 1	0.13	22	298	176											
1N/14W-16A 1 S 3-25-64	58 2.89 54	15 1.23 23	27 1.17 22	0 3.61 67	3 0.08 1	0 220 3.61	64 1.33 25	11 0.31 6	9.0 0.15 3	0.11	27	312	206											
1N/14W-23E 1 S 10-14-63	80 3.99 39	39 3.21 31	67 2.91 29	0 4.72 46	4 0.10 1	0 288 4.72	215 4.48 43	37 1.04 10	7.8 0.13 1	0.20	21	652	360											

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million percent				Mineral constituents in parts per million					
				Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total hardness as CaCO ₃	
L A SAN GABRIEL RIVER HYDRO UNIT U0500																	
SAN FERNANDO HYDRO SUBUNIT U05B0																	
SAN FERNANDO HYDRO SUBAREA U05B1																	
1N/14W-23E 1 S 3-25-64	70	7.6	822	83 4.14 44	26 2.14 23	69 3.00 32	4 0.10 1	0	266 4.36 45	184 3.83 40	30 0.85 9	40.0 0.65 7	0.6	0.19	25	559 592	314
1N/14W-23E 2 S 10-14-63	--	7.7	770	77 3.84 43	27 2.22 25	67 2.91 32	2 0.05 1	0	256 4.20 47	176 3.66 41	28 0.79 9	16.0 0.26 3	0.2	0.23	22	534 541	303
3-25-64	69	7.8	830	90 4.49 47	25 2.06 22	65 2.83 30	4 0.10 1	0	281 4.61 47	181 3.77 39	31 0.87 9	30.0 0.48 5	0.5	0.16	26	571 591	328
1N/14W-28B 1 S 10-14-63	68	7.7	1330	144 7.19 45	40 3.29 34	125 5.44 34	4 0.10 1	0	396 6.49 40	373 7.77 48	67 1.89 12	7.2 0.12 1	0.2	0.46	23	1016 979	524
1N/15W-20 2 S 7-15-64	78	7.5	1190	91 4.54 34	35 2.88 22	132 5.74 43	4 0.10 1	0	196 3.21 25	392 8.16 63	57 1.61 12	4.0 0.06 --	0.5	0.38	--	893 812	371
1N/15W-2R 2 S 7-15-64	77	7.6	1100	78 3.89 33	28 2.30 19	128 5.57 47	4 0.10 1	0	209 3.43 29	308 6.41 54	69 1.95 16	2.0 0.03 --	0.6	0.50	--	784 721	310
1N/15W-25D 1 S 3-24-64	56	7.9	1486	202 10.08 54	71 5.84 31	65 2.83 15	3 0.08 --	0	557 9.13 48	339 7.06 37	86 2.43 13	30.0 0.48 3	0.5	0.34	43	1215 1114	797
1N/16W-14K 1 S 10-17-63	96	7.1	2300	76 3.79 14	62 5.10 19	400 17.39 66	8 0.20 1	0	382 6.26 23	766 15.95 60	160 4.51 17	0.0 0.1 --	0.1	0.55	22	1690 1682	445

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million percent reactance value				Mineral constituents in parts per million				
				Calcium mg	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fluo- ride F	Boran B	Sili- ca SiO ₂	Total Dissolved Solids mg/l
L A SAN GABRIEL RIVER HYDRO UNIT U0500																
SAN FERNANDO HYDRO SUBUNIT U05B0																
SAN FERNANDO HYDRO SUBAREA U05B1																
1N/16W-14K 1 S 3-23-64	67	8.0	2234	56 2.79 11	59 4.85 20	378 16.44 68	0.20 0.20 1	0	388 6.36 25	690 14.37 57	155 4.37 17	1.6 0.03	0.5	0.40	23	382 1515 1562
1N/17W-26A 1 S 3-23-64	--	7.6	2220	312 15.57 49	162 13.32 42	69 3.00 9	0.20 0.20 1	0	516 8.46 27	1010 21.03 67	71 2.00 6	6.6 0.11	0.9	0	36	2128 1446 1929
2N/14W-30A 1 S 11-19-63	--	7.9	556	62 3.09 54	17 1.40 25	26 1.13 20	3 0.08 1	0	230 3.77 63	59 1.23 21	24 0.68 11	18.0 0.29 5	--	--	--	225 322
3-25-64	65	7.2	549	65 3.24 53	19 1.56 25	28 1.22 20	4 0.10 2	0	233 3.82 60	59 1.23 19	22 0.62 10	41.0 0.66 10	0.6	0.14	30	352 383
2N/14W-30A 3 S 10-16-63	63	7.9	530	46 2.30 39	28 2.30 39	29 1.26 21	4 0.10 2	0	223 3.65 64	56 1.17 20	22 0.62 11	18.0 0.29 5	0.6	0.16	24	352 337
11-19-63	--	8.2	492	56 2.79 54	15 1.23 24	24 1.04 20	3 0.08 2	0	226 3.70 67	50 1.04 19	18 0.51 9	16.0 0.26 5	--	--	--	201 293
2N/16W-12A 1 S 8-18-64	75	7.8	546	65 3.24 54	14 1.15 19	36 1.57 26	1 0.03 1	0	224 3.67 62	75 1.56 27	23 0.65 11	0.0 0.00 5	0.6	0.09	--	220 325
2N/17W-22C 2 S 10-17-63	--	8.1	700	62 3.09 38	24 1.97 24	69 3.00 37	3 0.08 1	0	333 5.46 66	82 1.71 21	41 1.16 14	0.0 0.0 5	0.4	0.10	19	500 464

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				Mineral constituents in parts per million				Total Dissolved Solids CaCO ₃					
				Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl		Fluoride F	Boron B	Silica SiO ₂	Total Dissolved Solids CaCO ₃ Computed	
L A SAN GABRIEL RIVER HYDRO UNIT U0500																	
SAN FERNANDO HYDRO SUBUNIT U05B0																	
SAN FERNANDO HYDRO SUBAREA U05B1																	
2N/17W-22C ? S 3-23-64	--	7.9	730	67 3.34 40	22 1.81 22	70 3.04 37	3 0.08 1	0	360 5.90 69	78 1.62 19	35 0.99 12	0.9 0.01	0.7	0.01	30	456 484	258
2N/17W-22C 6 S 8-18-64	--	7.8	955	80 3.99 38	35 2.88 28	81 3.52 34	2 0.05	0	311 5.10 49	186 3.87 37	53 1.49 14	2.0 0.03	0.7	0.06	--	641 593	344
SYLMAR HYDRO SUBAREA U05B2																	
2N/14W-30A 3 S 3-25-64	67	7.3	530	62 3.09 52	18 1.48 25	28 1.22 21	4 0.10 2	0	244 4.00 67	50 1.04 17	17 0.48 8	29.0 0.47	0.7	0.15	27	332 356	229
2N/15W-4B 2 S 3-25-64	67	8.0	635	75 3.74 53	22 1.81 26	33 1.43 20	4 0.10 1	0	283 4.64 65	72 1.50 21	24 0.68 10	18.0 0.29	0.4	0.18	28	415 416	278
3N/15W-25G 1 S 10-16-63	--	8.2	343	36 1.80 46	5 0.41 10	38 1.65 42	2 0.05 1	0	190 3.11 81	14 0.29 8	16 0.45 12	0.0 0.0	0.2	0.10	18	234 223	111
3-25-64	--	8.1	357	33 1.65 43	8 0.66 17	34 1.48 39	2 0.05 1	0	198 3.25 82	7 0.15 4	17 0.48 12	3.5 0.06 2	0.3	0.02	25	235 227	116
3N/15W-34A 1 S 10-16-63	69	7.9	440	41 2.05 43	18 1.48 31	28 1.22 25	2 0.05 1	0	204 3.34 69	50 1.04 21	14 0.39 8	4.6 0.07 1	0.2	0.10	18	280 276	177

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				Mineral constituents in parts per million				Total anions per Expt. (5°C)							
				Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl		Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂			
Date sampled																			
SAN FERNANDO HYDRO SUBUNIT U05B0																			
SYLMAR HYDRO SUBAREA U05B2																			
3N/15W-34A 1 S	70	7.8	400	54 2.69	5 0.41	27 1.17	4 0.10	0	187 3.06	49 1.02	10 0.28	8.0 0.13	0.3	0.06	24	246 273	155		
3N/15W-34P11 S	--	8.2	550	52 2.59	27 2.22	36 1.57	2 0.05	0	251 4.11	67 1.39	24 0.68	21.0 0.34	0.2	0.29	21	384 374	241		
3N/15W-34P 1 S	--	8.3	477	52 2.59	17 1.40	22 0.96	--	0	207 3.39	46 0.96	22 0.62	--	--	--	--	200			
3N/15W-34P11 S	67	7.7	594	66 3.29	21 1.73	35 1.52	3 0.08	0	265 4.34	63 1.31	22 0.62	26.0 0.42	0.4	0.26	31	380 398	251		
TUJUNGA HYDRO SUBAREA U05B3																			
2N/14W-5L 1 S	--	7.4	1134	175 6.24	41 3.37	87 3.78	5 0.13	0	378 6.20	283 5.89	46 1.30	17.0 0.27	1.1	0.45	26	832 817	481		
2N/14W-11A 1 S	--	8.2	625	79 3.94	16 1.32	47 2.04	4 0.10	0	306 5.02	87 1.81	19 0.54	0.0	1.2	0.38	24	430 428	263		
3-24-64	--	7.3	608	56 2.79	20 1.64	54 2.35	4 0.10	0	311 5.10	64 1.33	16 0.45	2.0 0.03	1.2	0.46	32	400 403	222		

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent				parts per million reactivity value				Mineral constituents in parts per million			
				Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Bicarbonate HCO ₃	Carbonate CO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total hardness CaCO ₃	Iron Fe	Copper Cu	Zinc Zn
SAN FERNANDO HYDRO SUBUNIT U05B0																			
TUJUNGA HYDRO SUBAREA U05B3																			
L A SAN GABRIEL RIVER HYDRO UNIT U0500																			
2N/14W-11N 1 S 10-15-63	--	8.5	780	73 3.64 40	43 3.54 39	44 1.91 21	0.08 0.33 4	3 10 0	312 5.11 57	74 1.54 17	53 1.49 17	30.0 0.48 5	0.4 0.16 39	566 523	0.4 0.09 50	39 17 16	566 523	359 331	
3-24-64	--	7.2	752	85 4.24 51	29 2.38 28	39 1.70 20	0.05 0.05 1	2 0 1	311 5.10 60	68 1.42 17	48 1.35 16	36.0 0.58 7	0.4 0.09 17	490 510	0.4 0.36 17	510 316	490 510	331 196	
2N/14W-12C 1 S 10-15-63	62	7.9	470	42 2.10 37	22 1.81 31	40 1.74 30	0 0.10 2	4 0 2	269 4.41 79	36 0.75 14	14 0.39 7	0.0 0.0 0	1.4 0.34 20	316 309	1.4 0.01 41	316 309	196 224		
2N/14W-12C 2 S 3-24-64	60	7.9	568	57 2.84 44	20 1.64 25	42 1.83 28	0 0.13 2	5 0 2	278 4.56 71	62 1.29 20	18 0.51 8	5.5 0.09 1	1.2 0.34 20	355 368	1.2 0.01 41	355 368	224 174		
2N/14W-14H 1 S 3-24-64	68	7.3	485	40 2.00 44	18 1.48 33	23 1.00 22	0 0.05 1	2 0 3	191 3.13 69	10 0.21 5	22 0.62 14	36.0 0.58 13	0.4 1.03 25	300 286	0.4 0.01 41	300 286	174 264		
3N/13W-32J 1 S 10-15-63	--	7.5	680	71 3.54 47	21 1.73 23	51 2.22 29	0 0.08 1	3 0 1	310 5.08 68	82 1.71 23	22 0.62 8	5.8 0.09 1	2.0 0.06 22	416 436	2.0 0.06 22	416 436	264 266		
3-24-64	--	8.1	621	67 3.34 46	24 1.97 27	42 1.83 25	0 0.05 1	2 0 1	293 4.80 68	87 1.81 26	16 0.45 6	1.5 0.02 0	2.8 0.02 0	390 408	2.8 0.02 0	390 408	266 408		
3N/14W-29F 2 S 3-24-64	--	8.6	669	1 0.05 1	0 0 0	170 7.39 99	0 0.63 8	19 0 8	376 6.16 81	13 0.27 4	20 0.56 7	1.2 0.02 0	0.3 0.02 0	409 422	0.3 0.02 0	409 422	3 3		

TABLE E-1

MINERAL ANALYSES OF GROUND WATER (1963/64)
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in						parts per million equivalents per percent reactivity value				Mineral constituents in parts per million				
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fuo- ride F	Baron B	Sili- co SiO ₂	I.O.S. Exap.105°C as Computed	Total Hardness as CaCO ₃	
SAN FERNANDO HYDRO SUBUNIT																		
TUJUNGA HYDRO SUBAREA																		
U0580																		
U0583																		
3N/14W-29J 1 S	--	8.5	700	95	21	43	10	12	344	99	20	3.0	0.2	0.11	17	492	324	
10-15-63				4.74	1.73	1.87	0.26	0.40	5.64	2.06	0.56	0.05				489		
				55	20	22	3	5	65	24	6	1						
3-24-64	--	8.2	740	78	36	42	9	0	393	97	18	4.6	0.6	0.06	22	470	343	
				3.89	2.96	1.83	0.23		6.44	2.02	0.51	0.07				500		
				44	33	21	3		71	22	6	1						
3N/14W-32M 1 S	69	7.1	540	58	14	37	4	0	242	24	28	38.0	0.3	0.09	36	346	202	
3-24-64				2.89	1.15	1.61	0.10		3.97	0.50	0.79	0.61				358		
				50	20	28	2		68	9	13	10						
3N/14W-32M 2 S	70	7.5	570	42	29	41	4	0	232	24	34	64.0	0.2	0.11	26	368	224	
10-15-63				2.10	2.38	1.78	0.10		3.80	0.50	0.96	1.03				378		
				33	37	28	2		60	8	15	16						
3N/14W-33K 1 S	--	7.1	1340	138	72	103	7	0	403	456	52	0.0	5.0	1.27	24	1102	641	
10-15-63				6.89	5.92	4.48	0.18		6.61	9.49	1.47					1056		
				39	34	26	1		38	54	8							
3-24-64	--	7.1	1605	190	72	113	8	0	444	557	48	2.3	2.8	0.78	30	1273	771	
				9.48	5.92	4.91	0.20		7.28	11.60	1.35	0.04				1242		
				46	29	24	1		36	57	7							
VERDUGO HYDRO SUBAREA																		
U0584																		
2N/13W-28N 1 S	--	7.3	650	66	22	31	3	0	169	34	46	109.0	0.2	0.08	36	422	255	
10-15-63				3.29	1.81	1.35	0.08		2.77	0.71	1.30	1.76				430		
				50	28	21	1		42	11	20	27						

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				million reactivity value					Mineral constituents in parts per million				
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fluo- ride F	Boron B	Sili- co SiO ₂	I.D.S. Evap 180°C Computed	Total hardness as CaCO ₃				
SAN FERNANDO HYDRO SUBUNIT U0580																					
VERDUGO HYDRO SUBAREA U0584																					
2N/13W-28N 1 S 3-24-64	67	6.6	661	66 3.29 49	26 2.14 32	29 1.26 19	3 0.08 1	0	0	177 2.90 43	35 0.73 11	50 1.41 21	103.0 1.66 25	0.2	0.02	48	470	272			
2N/13W-29F 1 S 10-15-63	--	7.1	350	35 1.75 45	13 1.07 27	24 1.04 27	2 0.05 1	0	0	125 2.05 53	19 0.40 10	23 0.65 17	46.0 0.74 19	0.2	0.03	37	222	141			
3-24-64	66	6.7	379	31 1.55 40	16 1.32 34	23 1.00 26	2 0.05 1	0	0	120 1.97 51	16 0.33 9	25 0.71 18	52.0 0.84 22	0.2	0	48	280	144			
2N/13W-33G 1 S 10-15-63	--	7.0	570	56 2.79 48	21 1.73 30	28 1.22 21	3 0.08 1	0	0	153 2.51 44	39 0.81 14	38 1.07 19	83.0 1.34 23	0.2	0.08	25	382	226			
3-24-64	66	6.7	610	60 2.99 48	25 2.06 33	26 1.13 18	3 0.08 1	0	0	161 2.64 43	36 0.75 12	46 1.30 21	90.0 1.45 24	0.2	0.04	44	427	253			
2N/13W-33R 1 S 10-15-63	68	7.6	418	44 2.20 52	12 0.99 23	23 1.00 24	2 0.05 1	0	0	149 2.44 59	16 0.33 8	20 0.56 13	51.0 0.82 20	0.2	0.08	32	274	160			
3-24-64	68	7.1	385	39 1.95 48	13 1.07 27	22 0.96 24	2 0.05 1	0	0	170 2.79 68	18 0.37 9	16 0.45 11	31.0 0.50 12	0.4	0.02	43	264	151			
																	268				

TABLE E-1
 MINERAL ANALYSES OF GROUND WATER 1963/64
 LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					Mineral constituents in parts per million								
				equivalents per million		reactance value		value									
Date sampled				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total hardness CaCO ₃	
L A SAN GABRIEL RIVER HYDRO UNIT U0500																	
SAN FERNANDO HYDRO SUBUNIT U05B0																	
EAGLE ROCK HYDRO SUBAREA U05B5																	
1N/13W-35N 2 S 8- 4-64	--	7.3	638	48 2,40 36	24 1,97 30	52 2,26 34	1 0.03	0	240 3,93 58	53 1.10 16	45 1.27 19	27.0 0.44 7	0.9	0.08	22	380 391	219

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million				Mineral constituents in parts per million			
				Calcium C.c.	Magne- sium M.g.	Sodium No.	Potas- sium K.	Carboh- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Flo- ride F	Baron B	Sili- ca SiO ₂
RAYMOND HYDRO SUBUNIT PASADENA HYDRO SUBAREA U05C0 U05C1															
1N/12W-20B 1 S 10-28-63	82	7.5	--	64 3.19 54	19 1.56 26	27 1.17 20	--	0	207 3.39 58	68 1.42 24	30 0.85 15	9.5 0.15 3	--	--	238
1N/12W-21K 1 S 11-14-63	72	7.7	260	21 1.05 42	5 0.41 16	24 1.04 41	0.03 0.03 1	0	92 1.51 63	14 0.29 12	9 0.25 10	22.0 0.35 15	1.2	0.17	150 73
4-13-64	74	7.9	220	20 1.00 45	3 0.25 11	22 0.96 43	1 0.03 1	0	87 1.43 67	4 0.08 4	11 0.31 14	20.0 0.32 15	1.2	0.17	140 63
1N/12W-26A 1 S 11-14-63	74	7.9	340	32 1.60 44	8 0.66 18	31 1.35 37	0.03 0.03 1	0	141 2.31 65	17 0.35 10	16 0.45 13	29.0 0.47 13	0.8	0.17	218 113
1-13-64	74	8.2	330	31 1.55 41	10 0.82 22	31 1.35 36	2 0.05 1	0	146 2.39 65	13 0.27 7	20 0.56 15	28.0 0.45 12	0.8	0.14	228 119
1N/12W-26C 1 S 11-14-63	73	7.8	250	25 1.25 38	4 0.33 10	39 1.70 51	1 0.03 1	0	123 2.02 64	30 0.62 19	11 0.31 10	14.0 0.23 7	2.0	0.26	192 79
4-13-64	74	8.1	320	26 1.30 39	4 0.33 10	38 1.65 50	1 0.03 1	0	127 2.08 67	24 0.50 16	12 0.34 11	12.0 0.19 6	1.4	0.29	194 82
1N/12W-34E 1 S 11-18-63	70	8.0	365	35 1.75 46	10 0.82 22	27 1.17 31	2 0.05 1	0	150 2.46 66	24 0.50 14	16 0.45 12	18.0 0.29 8	0.8	0.20	214 129

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million										Mineral constituents in parts per million																																																																																										
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fluo- ride F	Boron B	Sili- ca SiO ₂	I.D.S. Exp. 180°C Exp. 105°C Computed	Total Hardness as CaCO ₃																																																																																							
Date sampled				U05C0	U05C1	U05C2	U05C3	U05C4	U05C5	U05C6	U05C7	U05C8	U05C9	U05C10	U05C11	U05C12	U05C13	U05C14	U05C15	U05C16	U05C17	U05C18	U05C19	U05C20	U05C21	U05C22	U05C23	U05C24	U05C25	U05C26	U05C27	U05C28	U05C29	U05C30	U05C31	U05C32	U05C33	U05C34	U05C35	U05C36	U05C37	U05C38	U05C39	U05C40	U05C41	U05C42	U05C43	U05C44	U05C45	U05C46	U05C47	U05C48	U05C49	U05C50	U05C51	U05C52	U05C53	U05C54	U05C55	U05C56	U05C57	U05C58	U05C59	U05C60	U05C61	U05C62	U05C63	U05C64	U05C65	U05C66	U05C67	U05C68	U05C69	U05C70	U05C71	U05C72	U05C73	U05C74	U05C75	U05C76	U05C77	U05C78	U05C79	U05C80	U05C81	U05C82	U05C83	U05C84	U05C85	U05C86	U05C87	U05C88	U05C89	U05C90	U05C91	U05C92	U05C93	U05C94	U05C95	U05C96	U05C97	U05C98	U05C99	U05C100
RAYMOND HYDRO SUBUNIT PASADENA HYDRO SUBAREA				U05C0	U05C1	U05C2	U05C3	U05C4	U05C5	U05C6	U05C7	U05C8	U05C9	U05C10	U05C11	U05C12	U05C13	U05C14	U05C15	U05C16	U05C17	U05C18	U05C19	U05C20	U05C21	U05C22	U05C23	U05C24	U05C25	U05C26	U05C27	U05C28	U05C29	U05C30	U05C31	U05C32	U05C33	U05C34	U05C35	U05C36	U05C37	U05C38	U05C39	U05C40	U05C41	U05C42	U05C43	U05C44	U05C45	U05C46	U05C47	U05C48	U05C49	U05C50	U05C51	U05C52	U05C53	U05C54	U05C55	U05C56	U05C57	U05C58	U05C59	U05C60	U05C61	U05C62	U05C63	U05C64	U05C65	U05C66	U05C67	U05C68	U05C69	U05C70	U05C71	U05C72	U05C73	U05C74	U05C75	U05C76	U05C77	U05C78	U05C79	U05C80	U05C81	U05C82	U05C83	U05C84	U05C85	U05C86	U05C87	U05C88	U05C89	U05C90	U05C91	U05C92	U05C93	U05C94	U05C95	U05C96	U05C97	U05C98	U05C99	U05C100
IN/12W-34E 1 S 4-13-64	69	7.5	344	36 1.80 48	9 0.74 20	26 1.13 30	0.05 0	2 0	153 2.51 71	16 0.33 9	16 0.45 13	17.0 0.27 8	0.6 0.45 23	0.21 0.49 23	204 221 700	127 418 431																																																																																								
IN/12W-34N 1 S 11-14-63	70	7.6	960	123 6.14 55	27 2.22 20	62 2.70 24	3 0.08 1	0 0	293 4.80 43	156 3.25 29	85 2.40 22	44.0 0.71 6	0.6 0.71 6	0.49 0.37 21	706 668 696	418 431 97																																																																																								
4-13-64	74	7.6	990	120 5.99 52	32 2.63 23	67 2.91 25	3 0.08 1	0 0	303 4.97 43	162 3.37 29	84 2.37 20	57.0 0.92 8	0.8 0.8 6	0.37 0.29 19	706 696 199	431 97 121																																																																																								
IN/12W-35B 1 S 11-14-63	62	8.4	340	27 1.35 40	7 0.58 17	32 1.39 41	1 0.03 1	9 0.30 9	116 1.90 59	14 0.29 9	20 0.56 17	12.0 0.19 6	0.8 0.8 20	0.29 0.17 20	176 199 222	97 121 230																																																																																								
4-13-64	64	8.1	380	35 1.75 46	8 0.66 17	31 1.35 36	1 0.03 1	0 2.41 65	147 2.41 65	16 0.33 9	20 0.56 15	26.0 0.42 11	0.8 0.8 20	0.17 0.11 32	222 312 187	121 187 219																																																																																								
MONK HILL HYDRO SUBAREA				U05C2	U05C3	U05C4	U05C5	U05C6	U05C7	U05C8	U05C9	U05C10	U05C11	U05C12	U05C13	U05C14	U05C15	U05C16	U05C17	U05C18	U05C19	U05C20	U05C21	U05C22	U05C23	U05C24	U05C25	U05C26	U05C27	U05C28	U05C29	U05C30	U05C31	U05C32	U05C33	U05C34	U05C35	U05C36	U05C37	U05C38	U05C39	U05C40	U05C41	U05C42	U05C43	U05C44	U05C45	U05C46	U05C47	U05C48	U05C49	U05C50	U05C51	U05C52	U05C53	U05C54	U05C55	U05C56	U05C57	U05C58	U05C59	U05C60	U05C61	U05C62	U05C63	U05C64	U05C65	U05C66	U05C67	U05C68	U05C69	U05C70	U05C71	U05C72	U05C73	U05C74	U05C75	U05C76	U05C77	U05C78	U05C79	U05C80	U05C81	U05C82	U05C83	U05C84	U05C85	U05C86	U05C87	U05C88	U05C89	U05C90	U05C91	U05C92	U05C93	U05C94	U05C95	U05C96	U05C97	U05C98	U05C99	U05C100		
IN/12W-6M 6 S 11-14-63	66	7.7	520	52 2.59 51	14 1.15 23	30 1.30 26	2 0.05 1	0 0	202 3.31 66	32 0.67 13	27 0.76 15	19.0 0.31 6	0.4 0.31 6	0.11 0.11 30	312 308 400	187 219 219																																																																																								
4-13-64	66	8.0	635	58 2.89 42	18 1.48 22	56 2.43 35	2 0.05 1	0 3.51 51	214 3.51 51	78 1.62 24	52 1.47 21	15.0 0.24 4	0.2 0.24 4	0.11 0.11 30	400 219 415	219 219 219																																																																																								

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				Mineral constituents in parts per million										
				Calcium Mg	Magnesium Na	Sodium K	Potassium CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total hardness as CaCO ₃			
Date sampled				Ca	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂	I.D.S. Evap. 180°C Evap. 105°C Computed	Total hardness as CaCO ₃	
RAYMOND HYDRO SUBUNIT U05C0																		
MONK HILL HYDRO SUBAREA U05C2																		
1N/12W-8H 1 S 11-18-63	65	7.9	615	75 3.74	26 2.14	32 1.39	3 0.08	0	345 5.65	26 0.54	18 0.51	29.0 0.47	0.4	0.17	24	406 403	294	
4-13-64	65	8.2	790	42 2.10	33 2.71	90 3.91	3 0.08	0	258 4.23	132 2.75	52 1.47	18.0 0.29	0.4	0.19	17	514 514	241	
1N/12W-8H 2 S 11-18-63	68	7.5	410	41 2.05	15 1.23	20 0.87	2 0.05	0	152 2.49	16 0.33	18 0.51	41.0 0.66	0.8	0.09	36	294 265	164	
4-13-64	70	8.1	360	49 2.40	29 0.82	21 0.87	1 0.03	0	62 2.16	8 0.31	13 0.56	34.0 0.55	0.6	0.06	34	240 240	141	
1N/12W-9E 1 S 11-14-63	72	7.7	290	26 1.30	10 0.82	22 0.96	1 0.03	0	120 1.97	7 0.15	14 0.39	28.0 0.45	1.2	0.06	34	214 202	106	
1-10-64	73	7.0	326	34 1.70	10 0.82	23 1.00	1 0.03	0	127 2.08	10 0.21	19 0.54	34.0 0.55	1.0	0.07	32	232 226	126	
3-24-64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
1N/12W-9R 1 S 11-18-63	71	7.7	330	31 1.55	10 0.82	23 1.00	1 0.03	0	125 2.05	5 0.10	19 0.54	39.0 0.63	0.6	0.06	37	236 227	119	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent reoactance value				Mineral constituents in parts per million					
				Calcium Co	Magne sium Mg	Sodium No	Potas sium K	Carbon ate CO ₃	Bicar bonate HCO ₃	Sulfate SO ₄	Chlo ride Cl	Nit rate NO ₃	Ferri ride F	Boron B	Sulfo co SO ₂	T.D.S. Evap (BOC as Compd) CaCl ₂	Total Hardness as CaCl ₂
RAYMOND HYDRO SUBUNIT U05C0																	
MONK HILL HYDRO SUBAREA U05C2																	
1N/12W-9R 1 S 4-13-64	72	8.0	315	27 1.35 43	10 0.82 26	22 0.96 30	1 0.03 1	0	112 1.84 59	4 0.08 3	23 0.65 21	33.0 0.53 17	0.8	0.06	36	214 212	109
SANTA ANITA HYDRO SUBAREA U05C3																	
1N/11W-21C 2 S 11-18-63	--	7.9	395	27 1.35 30	13 1.07 24	46 2.00 45	1 0.03 1	0	189 3.10 70	37 0.77 17	11 0.31 7	14.0 0.23 5	2.0	0.37	20	258 264	121
4-13-64	68	8.2	430	29 1.45 31	8 0.66 14	59 2.57 55	1 0.03 1	0	197 3.23 71	40 0.83 18	12 0.34 7	8.9 0.14 3	2.4	0.43	16	270 274	106
1N/11W-21G 2 S 11-18-63	69	7.8	450	43 2.15 44	7 0.58 12	48 2.09 43	2 0.05 1	0	191 3.13 65	35 0.73 15	18 0.51 11	27.0 0.44 9	0.8	0.33	18	278 293	137
1-13-64	--	8.0	550	45 2.25 36	34 2.80 45	25 1.09 18	2 0.05 1	0	248 4.06 67	43 0.90 15	23 0.65 11	29.0 0.47 8	0.6	0.21	22	400 346	253
1N/11W-21G 5 S 7-21-64	74	7.7	437	35 1.75 40	2 0.16 4	57 2.48 56	1 0.03 1	0	181 2.97 69	29 0.60 14	18 0.51 12	16.0 0.23 5	1.1	0.22	20	286 266	96

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million							Mineral constituents in parts per million						
				Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	TDS Evap 180°C Evap 105°C Computed CaCO ₃	
SAN GABRIEL VALLEY HYDRO SUBUNIT U05D0																	
MAIN SAN GABRIEL HYDRO SUBAREA U05D1																	
L A SAN GABRIEL RIVER HYDRO UNIT U0500																	
1S/ 9W- 1F 2 S 6-23-64	69	7.8	598	53 2.64 42	20 1.64 26	45 1.96 31	0.03	1	0	178 2.92 46	64 1.33 21	30 0.85 13	75.0 1.21 19	0.6	0.03	392 376	214
1S/ 9W- 2H 1 S 8-18-64	70	8.2	998	102 5.09 50	36 2.96 29	48 2.09 21	0.05	2	0	180 2.95 29	142 2.96 29	82 2.31 20	130.0 2.10 20	--	--	631	403
1S/ 9W- 2O 1 S 8-18-64	74	8.5	758	58 2.89 37	20 1.64 21	75 3.26 41	0.08	3	0	192 3.15 39	142 2.96 36	52 1.47 18	34.5 0.56 7	--	--	479	227
1S/ 9W- 3C 1 S 6-23-64	--	7.5	770	68 3.39 42	39 3.21 40	32 1.39 17	0.08	3	0	256 4.20 52	119 2.88 31	42 1.18 15	10.0 0.16 2	0.4	0.05	556 439	330
8-18-64	68	8.3	662	63 3.14 47	26 2.14 32	32 1.39 21	0.05	2	0	206 3.38 49	74 1.54 22	31 0.87 13	69.0 1.11 16	--	--	398	264
1S/ 9W- 4J 1 S 6-23-64	--	7.6	650	57 2.84 43	25 2.06 31	36 1.57 24	0.08	3	0	196 3.21 47	61 1.27 19	40 1.13 17	71.0 1.15 17	0.6	0.05	418 390	245
1S/ 9W- 4R 1 S 8-18-64	70	8.4	644	64 3.19 50	20 1.64 26	35 1.52 24	0.08	3	0	209 3.43 50	51 1.06 15	45 1.27 19	68.0 1.10 16	--	--	389	242
1S/10W- 3A 1 S 8-11-64	68	8.4	700	90 4.49 62	19 1.56 21	27 1.17 16	0.05	2	0	296 4.85 65	41 0.85 11	26 0.73 10	67.0 1.08 14	--	--	418	303

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million							Mineral constituents in parts per million						
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	TDS Evap 180°C as CaCO ₃	
Date sampled				Co	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂	Computed	
SAN GABRIEL VALLEY HYDRO SUBUNIT U0500																	
MAIN SAN GABRIEL HYDRO SUBAREA U05D1																	
1S/10W-3A 1 S	--	7.7	670	78	27	32	2	0	295	32	22	78.0	0.2	0.07	--	414	306
8-13-64				3.89	2.22	1.39	0.05	0	4.84	0.67	0.62	1.26				416	
				52	29	18	1		65	9	8	17					
1S/10W-3C 2 S	--	7.7	625	89	13	27	3	0	274	39	24	49.0	0.2	0.29	--	410	276
8-12-64				4.44	1.07	1.17	0.08	0	4.49	0.81	0.68	0.79				379	
				66	16	17	1		66	12	10	12					
1S/10W-3D 1 S	--	7.9	510	69	12	17	3	0	235	26	18	18.0	0.2	0.15	17	306	222
2-14-64				3.44	0.99	0.74	0.08	0	3.85	0.54	0.51	0.29				296	
				66	19	14	2		74	10	10	6					
7- 7-64	--	7.6	605	79	17	22	3	0	270	37	19	41.0	0.2	0.10	--	374	267
				3.94	1.40	0.96	0.08	0	4.43	0.77	0.54	0.66				351	
				62	22	15	1		69	12	8	10					
8-17-64	--	7.8	670	72	23	17	1	0	252	58	16	40.0	0.2	0.15	--	380	274
				3.59	1.89	0.74	0.03	0	4.13	1.21	0.45	0.65				351	
				57	30	12	2		64	19	7	10					
1S/10W-4G 1 S	68	8.0	440	69	6	18	4	0	215	35	14	8.3	0.1	0.24	13	282	197
2-14-64				3.44	0.49	0.78	0.10	0	3.52	0.73	0.39	0.13				273	
				72	10	16	2		74	15	8	3					
7- 8-64	--	7.8	455	61	11	19	4	0	222	30	18	9.0	0.1	0.15	--	270	197
				3.04	0.90	0.83	0.10	0	3.64	0.62	0.51	0.15				261	
				62	18	17	2		74	13	10	3					
8-10-64	--	8.1	450	42	24	20	4	0	233	31	14	4.0	0.2	0.16	--	286	204
				2.10	1.97	0.87	0.10	0	3.82	0.65	0.39	0.06				254	
				42	39	17	2		78	13	8	1					

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent				Mineral constituents in parts per million					
				Calcium Mg	Magne- sium	Sodium Na	Potas- sium	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fluo- ride F	Baron B	Sili- ca SiO ₂	Total Hardness at 105°C Computed CaCO ₃	
L A SAN GABRIEL RIVER HYDRO UNIT U0500																	
SAN GABRIEL VALLEY HYDRO SUBUNIT U05D0																	
MAIN SAN GABRIEL HYDRO SUBAREA U05D1																	
1S/10W-4R 2 S 8-18-64	--	7.5	590	59 2.94 44	30 2.47 37	26 1.13 17	3 0.08	0	4.39 66	38 0.79 12	22 0.62 9	55.0 0.89 13	0.2	0.05	--	386 365	271
1S/10W-6N 1 S 8-18-64	--	7.4	370	66 3.29 79	4 0.33 8	11 0.48 11	3 0.08 2	0	3.06 76	22 0.46 11	13 0.37 9	9.0 0.15 4	0.2	0.07	--	234 220	181
1S/10W-7A 1 S 8-10-64	81	8.4	628	84 4.19 78	4 0.33 6	18 0.78 14	4 0.10 2	0	3.54 57	216 0.83 13	40 1.47 23	25.1 0.42 7	--	--	--	334	226
1S/10W-7A 6 S 6-25-64	--	7.9	750	71 3.54 46	41 3.37 43	17 0.74 10	4 0.10 1	0	3.54 45	216 1.17 15	56 2.99 38	12.0 0.19 2	0.2	0.08	--	660 413	346
8-18-64	--	7.8	760	69 3.44 43	44 3.62 45	19 0.83 10	5 0.13 2	0	3.67 46	224 1.08 13	52 3.10 38	13.0 0.21 3	0.2	0.07	--	544 422	353
1S/10W-7K 2 S 8-18-64	--	7.5	860	89 4.44 48	47 3.87 42	17 0.74 8	5 0.13 1	0	4.79 51	292 1.21 13	58 1.64 18	106.0 1.71 18	0.1	0.10	--	568 524	416
1S/10W-8A 2 S 8-18-64	--	7.7	490	66 3.29 60	17 1.40 26	13 0.57 10	7 0.18 3	0	3.70 69	226 0.60 11	18 0.51 10	32.0 0.52 10	0.2	0.07	--	307 293	235
1S/10W-9F 1 S 8-17-64	--	7.5	600	83 4.14 63	17 1.40 21	21 0.91 14	4 0.10 2	0	3.88 59	237 0.96 14	29 0.82 12	60.0 0.97 15	0.1	0.07	--	392 377	277

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million										Mineral constituents in parts per million				
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Flu- oride F	Borax B	Sul- fate SO ₄	LD5 Expo- sure Conc Computed	Total Hardness as CaCO ₃	
L A SAN GABRIEL RIVER HYDRO UNIT U0500																		
SAN GABRIEL VALLEY HYDRO SUBUNIT U0500																		
MAIN SAN GABRIEL HYDRO SUBAREA U05D1																		
1S/10W-10C 1 S 6-25-64	62	8.0	600	60 2.99 47	29 2.58 37	21 0.91 14	3 0.08 1	0	231 3.79 59	51 1.06 17	18 0.51 8	65.0 1.05 16	0.1	0.05	--	452 361	269	
8-12-64	--	7.4	590	83 4.14 64	16 1.32 20	26 0.96 15	3 0.08 1	0	225 3.69 58	54 1.12 18	19 0.54 8	64.0 1.03 16	0.2	0.10	--	406 372	273	
1S/10W-10P 1 S 8-12-64	--	7.6	540	75 3.74 64	13 1.07 18	23 1.00 17	2 0.05 1	0	221 3.62 60	54 1.12 18	14 0.39 6	58.0 0.94 15	0.4	0.07	--	360 348	241	
1S/10W-17G 1 S 10-10-63	--	7.8	520	73 3.64 63	15 1.23 21	19 0.83 14	4 0.10 2	0	236 3.87 67	37 0.77 13	17 0.48 8	43.0 0.69 12	0.2	0	15	382 339	244	
6-25-64	--	7.8	580	64 3.19 55	24 1.97 34	13 0.57 10	4 0.10 2	0	221 3.62 67	42 0.87 15	21 0.59 10	49.0 0.79 13	0.1	0.08	--	414 326	258	
1S/10W-19N 1 S 6-25-64	--	8.1	960	77 3.84 36	46 3.78 35	67 2.91 27	6 0.15 1	0	226 3.70 34	180 3.75 35	85 2.40 22	62.0 1.00 9	0.1	0.15	--	720 634	381	
1S/10W-19Q 6 S 6-25-64	66	7.8	550	58 2.89 50	22 1.81 31	22 0.96 17	4 0.10 2	0	235 3.85 65	42 0.87 15	20 0.56 10	37.0 0.60 10	0.2	0.08	--	364 321	235	
1S/11W-1M 1 S 8-18-64	--	7.8	350	50 2.50 66	9 0.74 20	11 0.48 13	2 0.05 1	0	182 2.98 80	23 0.48 13	6 0.17 5	5.0 0.08 2	0.2	0.05	--	242 196	162	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				mineral constituents in million reactivity value				Mineral constituents in parts per million				
				Calcium	Magne- sium	Sodium	Potas- sium	Carbon- ate	Bicar- bonate	Sulfate	Chlo- ride	Ni- trate	Fluo- ride	Boron	Sil- ca	Sul- fur	Chlo- ride	NO ₃	F	B
Date sampled				Co	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	Co	S	SiO ₂	Computed	CaCO ₃	
SAN GABRIEL VALLEY HYDRO SUBUNIT U05D0																				
MAIN SAN GABRIEL HYDRO SUBAREA U05D1																				
L A SAN GABRIEL RIVER HYDRO UNIT U0500																				
1S/11W- 2G 2 S 6-26-64	63	8.0	510	48 2.40 42	30 2.47 43	19 0.83 14	0.05	2	0	259 4.25 75	1 0.50 9	14 0.39 7	31.0 0.50 9	0.2	0.14	--	--	330 296	244	
1S/11W- 2J 1 S 8-10-64	70	8.2	608	89 4.44 70	17 1.40 22	10 0.43 7	3 0.08	3	0	294 4.82 80	25 0.52 9	16 0.45 7	14.2 0.23 4	--	--	--	--	319	292	
1S/11W- 6H 2 S 8-11-64	68	8.1	285	23 1.15 42	6 0.49 18	23 1.00 36	5 0.13	5	0	81 1.33 85	1 0.02 1	5 0.14 9	4.5 0.07 4	--	--	--	--	107	82	
1S/11W- 8A 3 S 10-11-63	67	7.9	330	41 2.05 54	8 0.66 17	25 1.09 28	1 0.03	1	0	192 3.15 85	14 0.29 8	8 0.23 6	3.2 0.05 1	0.8	0.13	17		234 213	136	
6-26-64	66	7.8	360	39 1.95 49	10 0.82 21	27 1.17 29	1 0.03	1	0	201 3.29 85	14 0.29 7	11 0.31 8	0.0 0.0 0	0.8	0.15	--		226 202	139	
1S/11W-10F 1 S 6-26-64	62	7.8	390	48 2.40 57	13 1.07 25	16 0.70 17	1 0.03	1	0	220 3.61 87	18 0.37 9	6 0.17 4	0.0 0.0 0	0.4	0.10	--		232 211	174	
1S/11W-10N 7 S 7-17-64	63	7.3	375	45 2.25 55	14 1.15 28	15 0.65 16	1 0.03	1	0	206 3.38 86	12 0.25 6	7 0.20 5	7.0 0.11 3	0.7	0.10	--		248 203	170	
1S/11W-11F 4 S 8- 3-64	68	8.2	466	57 2.84 57	15 1.23 25	20 0.87 17	2 0.05	2	0	226 3.70 75	25 0.52 11	20 0.56 11	10.0 0.16 3	--	--	--		260	204	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million percent reactance value				Mineral constituents in parts per million					
				Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total Dissolved Solids Computed	
SAN GABRIEL VALLEY HYDRO SUBUNIT U05D0																	
MAIN SAN GABRIEL HYDRO SUBAREA U05D1																	
L A SAN GABRIEL RIVER HYDRO UNIT U0500																	
1S/11W-11P 7 S 6-26-64	63	7.8	520	65 3,224 57	19 1,56 27	18 0.78 14	4 0.10 2	0	257 4,21 74	29 0.60 11	18 0.51 9	21.0 0.34 6	0.2	0.12	--	330 301	240
1S/11W-12A 3 S 7-17-64	--	7.6	323	41 2,005 59	12 0,99 29	3 0.35 10	3 0.08 2	0	166 2,72 80	23 0.48 14	4 0.11 3	6.0 0.10 3	0.5	0.03	--	216 179	152
1S/11W-12B 2 S 8-18-64	--	7.9	310	46 2,330 66	9 0,74 21	9 0.39 11	3 0.08 2	0	175 2,87 86	16 0.33 10	3 0.08 2	4.0 0.06 2	0.2	0.05	--	198 176	152
1S/11W-14M 1 S 6-26-64	--	8.0	600	68 3,339 50	32 2,63 39	14 0.61 9	4 0.10 1	0	220 3,61 53	85 1,77 26	33 0.93 14	27.0 0.44 7	0.2	0.10	--	436 371	301
1S/11W-17G 2 S 6-26-64	54	8.2	370	39 1,95 47	13 1,07 26	25 1.09 26	1 0.03 1	0	214 3,51 83	17 0.35 8	11 0.31 7	4.0 0.06 1	1.0	0.23	--	226 216	151
1S/11W-24Q 7 S 7-17-64	68	7.5	562	74 3,669 62	14 1,15 19	24 1.04 17	4 0.10 2	0	229 3,75 62	63 1,31 22	28 0.79 13	13.0 0.21 3	0.4	0.05	20	371 353	242
1S/11W-25Q 1 S 10-10-63	--	7.8	750	99 4,94 59	24 1,97 24	30 1.30 16	4 0.10 1	0	327 5,36 65	61 1,27 15	41 1.16 14	30.0 0.48 6	0.2	0.08	23	496 473	346
6-25-64	--	8.1	780	27 1,35 15	75 6,17 69	29 1,26 14	4 0.10 1	0	337 5,52 61	68 1,42 16	57 1.61 18	30.0 0.48 5	0.2	0.05	--	550 456	376

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent reactivity value				Mineral constituents in parts per million			
				Calcium Mg	Magnesium Na	Sodium K	Potassium	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Barium Ba	Silica SiO ₂
L A SAN GABRIEL RIVER HYDRO UNIT U0500															
SAN GABRIEL VALLEY HYDRO SUBUNIT U0500															
MAIN SAN GABRIEL HYDRO SUBAREA U0501															
1S/11W-26K 1 S 6-26-64	65	7.9	520	64 3.19 54	17 1.40 24	28 1.22 21	4 0.10 2	0 3.62 60	221 0.221 0.221	67 1.39 23	28 0.79 13	14.0 0.23 4	0.2 0.05 0.05	358 331 354	230
1S/11W-26L 7 S 8-11-64	65	8.3	893	104 5.19 55	23 1.89 20	50 2.17 23	5 0.13 1	0 4.25 44	259 0.259 0.259	147 3.06 32	58 1.64 17	43.0 0.69 7	-- 0.6 0.6	557 228 225	354
1S/11W-30C 3 S 6-25-64	--	7.5	430	33 1.65 38	19 1.56 36	26 1.13 26	1 0.03 1	0 3.20 74	195 0.195 0.195	24 0.50 11	21 0.59 14	4.0 0.06 1	0.17 0.13 0.13	228 225 214	161
1S/11W-30D 2 S 6-26-64	--	7.6	390	34 1.70 43	11 0.90 23	30 1.30 33	1 0.03 1	0 2.87 73	175 0.175 0.175	29 0.60 15	12 0.34 9	6.0 0.10 3	0.6 0.08 0.08	210 670 554	130
1S/11W-33N 7 S 6-26-64	--	8.9	880	92 4.59 48	41 3.37 35	34 1.48 15	5 0.13 1	0 3.80 39	232 0.232 0.232	193 4.02 41	66 1.86 19	9.0 0.15 2	0.2 0.15 0.15	670 554 760	398
1S/11W-33P 1 S 6-25-64	--	8.0	1070	105 5.24 44	46 3.78 32	63 2.74 23	5 0.13 1	0 3.98 33	243 0.243 0.243	266 5.54 46	76 2.14 18	24.0 0.39 3	0.2 0.07 0.07	760 705 384	451
1S/12W-10E 1 S 6-26-64	60	7.6	570	46 2.30 38	22 1.81 30	45 1.96 32	2 0.05 1	0 3.20 53	195 0.195 0.195	36 0.75 12	42 1.18 20	56.0 0.90 15	0.2 0.07 0.07	384 345 152	206
1S/12W-11N 2 S 8-12-64	71	7.8	419	41 2.05 46	12 0.99 22	31 1.35 30	2 0.05 1	0 2.92 67	178 0.178 0.178	17 0.35 8	24 0.68 16	24.0 0.39 9	-- 0.07 0.07	239	152

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent reagent value				Mineral constituents in parts per million				
				Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total Dissolved Solids (TDS) Computed
SAN GABRIEL VALLEY HYDRO SUBUNIT U05D0																
MAIN SAN GABRIEL HYDRO SUBAREA U05D1																
2S/9W-4K 1 S 6-25-64	--	7.5	1030	106 5.29 47	51 4.19 37	40 1.74 15	2 0.05	0	350 5.74 50	197 4.10 36	46 1.30 11	0.4	0.10	--	850 632	474
2S/9W-8R 3 S 6-25-64	--	7.9	1250	133 6.64 46	61 5.02 35	61 2.65 18	3 0.08 1	0	383 6.28 43	280 5.83 40	70 1.97 14	0.2	0.45	--	894 823	583
2S/10W-8E 1 S 8-11-64	68	8.2	1270	125 6.24 45	40 3.29 24	99 4.30 31	2 0.05	0	338 5.54 41	212 4.41 32	114 3.21 23	--	--	--	874 789	477
2S/10W-8E 2 S 10-10-63	--	7.3	1180	150 7.49 56	23 1.89 14	92 4.00 30	2 0.05	0	356 5.83 43	209 4.35 32	100 2.82 21	0.2	0.30	28	846 811	469
6-25-64	68	8.1	1210	97 4.84 34	59 4.85 34	100 4.35 31	2 0.05	0	356 5.83 42	213 4.43 32	116 3.27 23	0.4	0.16	--	874 788	485
2S/10W-10N 1 S 8-11-64	82	8.5	1170	117 5.84 46	33 2.71 21	95 4.13 32	4 0.10 1	0	371 6.08 45	182 3.79 28	119 3.36 25	--	--	--	744 744	428
2S/10W-10P 2 S 6-25-64	--	8.2	1260	94 4.69 34	56 4.61 34	100 4.35 32	4 0.10 1	0	355 5.82 43	208 4.33 32	114 3.21 24	0.4	0.45	--	830 765	465
2S/10W-13H 2 S 6-25-64	--	7.6	1550	125 6.24 39	66 5.43 34	100 4.35 27	2 0.05	0	394 6.46 40	289 6.02 37	116 3.27 20	0.4	0.53	--	1004 918	584

TABLE E-1
 MINERAL ANALYSES OF GROUND WATER 1963/64
 LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million							Mineral constituents in parts per million						
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fluo- ride F	Boron B	Sili- co SiO ₂	Total Dissoc- iated IO ₃ CO ₃	Total Hardness CaCO ₃
L A SAN GABRIEL RIVER HYDRO UNIT U0500																	
SAN GABRIEL VALLEY HYDRO SUBUNIT U0500																	
MAIN SAN GABRIEL HYDRO SUBAREA U0501																	
25/11W-4D 2 S 7-17-64	--	8.1	1004	120 5.99 54	25 2.06 19	67 2.91 26	6 0.15 1	0	222 3.64 33	248 5.16 47	71 2.00 18	14.0 0.23 2	0.4	0.05	--	745 661	403
25/11W-5G 1 S 6-26-64	63	7.9	550	59 2.94 49	27 2.22 37	16 0.70 12	3 0.08 1	0	222 3.64 61	72 1.50 25	24 0.68 11	8.0 0.13 2	0.2	0.05	--	370 318	258
25/11W-6R 3 S 7-17-64	--	7.5	791	124 6.19 69	22 1.81 20	20 0.87 10	4 0.10 1	0	279 4.57 51	158 3.29 37	31 0.87 10	13.0 0.21 2	0.4	0.07	26	586 536	400
25/11W-8A 5 S 7-1-64	66	7.9	685	72 3.59 49	23 1.89 26	42 1.83 25	3 0.08 1	0	272 4.46 59	104 2.17 29	29 0.82 11	7.0 0.11 1	0.2	0.05	--	448 414	274
25/11W-11M 2 S 7-24-64	68	7.2	650	77 3.84 56	16 1.32 19	38 1.65 24	4 0.10 1	0	187 3.06 44	127 2.64 38	43 1.21 17	7.0 0.11 2	0.4	0.08	23	420 427	258
1N/ 9W-29C 1 S 10-10-63	64	7.9	605	68 3.39 47	27 2.22 31	33 1.43 20	6 0.15 2	0	275 4.51 65	65 1.35 19	21 0.59 8	33.0 0.53 8	0.4	0.06	19	422 408	281
1N/ 9W-29C 2 S 6-24-64	64	8.0	640	58 2.89 43	30 2.47 37	27 1.17 18	6 0.15 2	0	244 4.00 58	55 1.15 17	58 1.64 24	8.0 0.13 2	0.2	0.05	--	478 362	268
1N/ 9W-29E 1 S 10-10-63	64	7.7	580	70 3.49 53	24 1.97 30	24 1.04 16	4 0.10 2	0	197 3.23 49	48 1.00 15	22 0.62 9	105.0 1.69 26	0.2	0.06	29	440 423	273

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Date sampled	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million							Mineral constituents in parts per million					
					Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Beryllium	Silica	I.D.S. Evap. 180°C
L A SAN GABRIEL RIVER HYDRO UNIT U0500																	
SAN GABRIEL VALLEY HYDRO SUBUNIT U0500																	
MAIN SAN GABRIEL HYDRO SUBAREA U0501																	
1N/9W-29M 1 S 8-10-64		75	8.4	661	75 3.74	20 1.64	27 1.17	3 0.08	0	198 3.25	58 1.21	26 0.73	88.0 1.42	--	--	394	269
1N/9W-32G 1 S 10-10-63		64	7.7	850	103 5.14	35 2.88	36 1.57	1 0.03	0	300 4.92	112 2.33	41 1.16	89.0 1.44	0.2	37	668	401
6-24-64		64	7.5	880	96 4.79	38 3.13	36 1.57	1 0.03	0	286 4.69	109 2.27	43 1.21	93.0 1.50	0.1	0.05	608	396
1N/10W-31A 1 S 8-11-64		--	8.1	500	76 3.79	10 0.82	14 0.61	4 0.10	0	226 3.70	36 0.75	14 0.39	22.0 0.35	0.2	0.09	306	231
1N/10W-31M 1 S 8-11-64		--	8.1	480	61 3.04	16 1.32	14 0.61	3 0.08	0	228 3.74	31 0.65	11 0.31	20.0 0.32	0.2	0.07	290	218
1N/10W-32J 2 S 8-10-64		71	8.6	409	54 2.69	13 1.07	10 0.43	3 0.08	15 0.50	192 3.15	30 0.62	9 0.25	7.0 0.11	--	--	268	188
8-17-64		--	7.7	420	60 2.99	11 0.90	14 0.61	3 0.08	0	204 3.34	28 0.58	14 0.39	7.0 0.11	0.2	0.10	235	195
1N/10W-34L 1 S 8-13-64		--	7.4	500	78 3.89	20 0.58	15 0.65	3 0.08	0	215 3.52	36 0.75	13 0.37	40.0 0.65	0.4	0.14	334	224

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million							Mineral constituents in parts per million						
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlor- ide Cl	Ni- trate NO ₃	Fuo- ride F	Boron B	Sulf- co SO ₂	I.D.S. Evap 180°C Evap 105°C Computed	Total hardness as CaCO ₃
SAN GABRIEL VALLEY HYDRO SUBUNIT U05D0																	
MAIN SAN GABRIEL HYDRO SUBAREA U05D1																	
1N/10W-34N 1 S 2-14-64	66	7.9	460	63 3.14 65	13 1.07 22	12 0.52 11	4 0.10 2	0	226 3.70 79	21 0.44 9	9 0.25 5	19.0 0.31 7	0.2	0.06	16	280 268	211
7- 7-64	--	8.0	460	60 2.99 60	16 1.32 26	14 0.61 12	3 0.08 2	0	224 3.67 74	24 0.50 10	14 0.39 8	26.0 0.42 8	0.2	0.05	--	284 267	216
8-10-64	--	8.1	480	59 2.94 60	15 1.23 25	14 0.61 13	4 0.10 2	0	227 3.72 77	19 0.40 8	14 0.39 8	22.0 0.35 7	0.2	0.07	--	298 259	209
9-11-64	--	8.1	380	49 2.45 62	10 0.82 21	13 0.57 14	4 0.10 3	0	163 2.67 67	25 0.52 13	13 0.37 9	28.0 0.45 11	0.2	0.10	--	210 222	164
1N/10W-34N 2 S 2-14-64	66	8.0	500	70 3.49 66	13 1.07 20	14 0.61 12	4 0.10 2	0	229 3.75 73	24 0.50 10	16 0.45 9	29.0 0.47 9	0.2	0.06	15	320 298	228
7- 8-64	--	7.8	505	70 3.49 65	15 1.23 23	13 0.57 11	3 0.08 1	0	242 3.97 74	24 0.50 9	15 0.42 8	31.0 0.50 9	0.2	0.10	--	318 290	236
8-10-64	--	8.0	500	51 2.54 46	27 2.22 41	14 0.61 11	4 0.10 2	0	238 3.90 74	25 0.52 10	15 0.42 8	26.0 0.42 8	0.2	0.09	--	316 279	238
9-11-64	--	8.2	520	59 2.94 54	23 1.89 34	13 0.57 10	3 0.08 1	0	235 3.85 72	27 0.56 10	16 0.45 8	30.0 0.48 9	0.4	0.12	--	338 287	242

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million										Mineral constituents in parts per million				
				Calcium	Magne- sium	Sodium	Potas- sium	Carbon- ate	Bicar- bonate	Sulfate	Chlo- ride	Ni- trate	Fus- sion	Sil- ica	I.D.S. Exap- tation	Address	Com- puted	
Date sampled				Co	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂	as	Co. 0.3	
SAN GABRIEL VALLEY HYDRO SUBUNIT U0500																		
MAIN SAN GABRIEL HYDRO SUBAREA U05D1																		
IN/11W-21C 6 S	58	7.8	465	41	7	50	1	0	187	33	22	33.0	0.8	0.24	--	280	132	
6-26-64				2.05	0.58	2.17	0.03	0	3.06	0.69	0.62	0.53				280		
				42	12	45	1		62	14	13	11						
IN/11W-36R 1 S	--	7.7	--	46	19	19	4	0	206	26	19	16.0	0.2	0.07	--	242	193	
8-17-64				2.30	1.56	0.83	0.10	0	3.38	0.54	0.54	0.26				250		
				48	33	17	2		72	11	11	6						
UPPER CANYON HYDRO SUBAREA U05D3																		
IN/10W-22M 1 S	61	8.2	445	62	11	28	4	0	230	50	13	5.8	0.2	0.09	12	302	200	
10-10-63				3.09	0.90	1.22	0.10	0	3.77	1.04	0.37	0.09				299		
				58	17	23	2		72	20	7	2						
6-24-64	60	8.0	500	51	20	26	4	0	242	47	10	7.0	0.2	0.08	--	320	209	
				2.54	1.64	1.13	0.10	0	3.97	0.98	0.28	0.11				284		
				47	30	21	2		74	18	5	2						
IN/10W-22P 2 S	62	7.9	430	51	18	13	3	0	237	36	5	1.0	0.2	0.13	--	264	201	
6-24-64				2.54	1.48	0.57	0.08	0	3.88	0.75	0.14	0.02				244		
				54	32	12	2		81	16	3							
IN/10W-23B 1 S	86	8.5	694	65	20	60	4	0	239	121	41	3.2	--	--	--	244	244	
8-10-64				3.24	1.64	2.61	0.10	0	3.92	2.52	1.16	0.05				432		
				43	22	34	1		51	33	15	1						
IN/10W-23C 1 S	66	8.4	654	59	17	60	4	0	225	112	39	3.2	--	--	--	405	217	
8-10-64				2.94	1.40	2.61	0.10	0	3.69	2.33	1.10	0.05						
				42	20	37	1		51	32	15	1						

TABLE E-1
 MINERAL ANALYSES OF GROUND WATER 1963/64
 LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Date sampled	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in					parts per million equivalents per million percent reactance value				Mineral constituents in parts per million			
					Calcium Mg	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Iron Fe
L A SAN GABRIEL RIVER HYDRO UNIT U0500																	
SAN GABRIEL VALLEY HYDRO SUBUNIT U05D0																	
UPPER CANYON HYDRO SUBAREA U05D3																	
1N/10W-27C 1 S	8-10-64	63	8.4	392	54	11	10	4	0	224	26	5	0.0	--	--	--	180
					2.69	0.90	0.43	0.10		3.67	0.54	0.14					220
					65	22	10	2		.84	12	3					

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				Mineral constituents in parts per million				Mineral constituents in parts per million					
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Ful- fide F	Bar- ite Ba	Sul- fate SO ₄	I.D.S. Evp. Bldg. Exp. USC Comptrol.	Total Hard- ness as CaCO ₃
Date sampled																	
L A SAN GABRIEL RIVER HYDRO UNIT U0500																	
U05E0																	
SPADRA HYDRO SUBUNIT																	
SPADRA HYDRO SUBAREA																	
1S/ 8W-7N 1 S 6-23-64	71	8.1	400	30 1.50 38	11 0.90 23	34 1.48 38	1 0.03 1	0	157 2.57 64	43 0.90 22	13 0.37 9	12.0 0.19 5	0.12	--	0.2	232 221	120
1S/ 8W-10N 1 S 6-22-64	68	7.9	310	29 1.45 47	1 0.08 3	35 1.52 49	2 0.05 2	0	148 2.43 77	17 0.35 11	11 0.31 10	4.0 0.06 2	0.08	--	0.2	180 172	77
1S/ 8W-16B 1 S 6-22-64	--	8.0	375	31 1.55 40	4 0.33 8	45 1.96 50	2 0.05 1	0	133 2.18 58	23 0.48 13	23 0.65 17	27.0 0.44 12	0.10	--	0.2	234 221	94
1S/ 9W-12R 1 S 6-23-64	72	7.9	400	36 1.80 42	8 0.66 15	41 1.78 42	1 0.03 1	0	161 2.64 61	51 1.06 24	16 0.45 10	12.0 0.19 4	0.12	--	0.2	250 244	123
1S/ 9W-26H 1 S 6-25-64	67	7.9	760	72 3.59 44	39 3.21 40	29 1.26 16	2 0.05 1	0	231 3.79 47	136 2.83 35	31 0.87 11	40.0 0.65 8	0.05	--	0.2	536 463	340
LIVE OAK HYDRO SUBAREA																	
U05E3																	
1S/ 8W-5A 1 S 6-23-64	63	7.8	820	88 4.39 50	36 2.96 34	31 1.35 15	1 0.03 1	0	164 2.69 31	131 2.73 31	39 1.10 13	133.0 2.15 25	0.05	--	0.4	672 540	368
1S/ 8W-15A 0 S 8-18-64	70	8.2	816	92 4.59 57	24 1.97 25	33 1.43 18	2 0.05 1	0	130 2.13 26	132 2.75 33	38 1.07 13	140.0 2.26 28	--	--	--	525	328

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in				parts per million equivalents per million				Mineral constituents in							
				Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	I.D.S. Exp. 180°C Exp. 105°C Computed	Total hardness as CaCl ₂		
L A SAN GABRIEL RIVER HYDRO UNIT U0500																			
SPADRA HYDRO SUBUNIT U05E0																			
LIVE OAK HYDRO SUBAREA U05E3																			
1N/ 8W-34N 1 S 6-72-64	64	7.6	480	53 2.64 53	18 1.48 30	19 0.83 17	0.05 1	2	0	2.70 56	165 2.70	38 0.79 16	10 0.28 6	67.0 1.08 22	0.2	0.12	--	324 288	206
1N/ 8W-35J 1 S 6-22-64	64	8.2	430	30 1.50 53	28 2.30 51	15 0.65 14	2 0.05 1	0	0	179 2.93 66	31 0.65	31 0.65 15	12 0.34 8	32.0 0.52 12	0.2	0.17	--	268 238	190

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				Mineral constituents in parts per million								
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K					
ANAHEIM HYDRO SUBUNIT U05F0																
ANAHEIM HYDRO SUBAREA U05F1																
3S/10W-25L 1 S 4-14-64	68	7.7	1555	102 5.09 31	49 4.03 24	167 7.26 44	4 0.10	0	295 4.84 30	305 6.35 39	146 4.12 25	58 0.94 6	0.30	--	1063	456
3S/10W-32F 1 S 3-24-64	--	7.5	1040	117 5.84 55	25 2.06 19	61 2.65 25	4 0.10	0	296 4.85 47	147 3.06 29	76 2.14 21	22 0.35 3	0.02	--	977	395
3S/10W-35K 1 S 4-17-64	--	7.9	810	90 4.49 52	19 1.56 18	58 2.52 29	5 0.13	0	270 3.61 41	120 2.50 29	90 2.54 29	7.6 0.12 1	0.18	25	556	303
3S/10W-36H 1 S 3-30-64	--	7.8	696	--	--	--	--	0	246 4.03	74 1.54	49 1.38	--	--	--	523	--
9-23-64	66	7.7	701	--	--	--	--	0	236 3.87	80 1.67	54 1.52	--	--	--	--	--
3S/11W-29H 1 S 7- 6-64	--	7.9	532	58 2.89 51	11 0.90 16	41 1.78 32	2 0.05	0	259 4.25 74	17 0.35 6	40 1.13 20	0.2	0.09	23	320	190
3S/11W-30P 2 S 7- 6-64	68	8.0	493	3.34 67 60	1.07 13 19	1.04 24 19	0.08	0	256 4.20 76	41 0.85 15	16 0.45 8	1.4 0.02	0.07	22	310	221
3S/11W-330 1 S 7-23-64	--	7.9	444	41 2.05 43	13 1.07 22	38 1.65 34	2 0.05	0	229 3.75 78	33 0.69 14	14 0.39 8	0.0	0.06	--	294	156

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million percent reactance value				Mineral constituents in parts per million						
				Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total hardness as CaCO ₃		
ANAHEIM HYDRO SUBUNIT U05F0				L A SAN GABRIEL RIVER HYDRO UNIT U0500														
ANAHEIM HYDRO SUBAREA U05F1																		
4S/ 9W- 4M 2 S 4- 6-64	--	7.4	1081	--	--	--	--	0	185	258	96	--	--	--	--	--	--	
									3.03	5.37	2.71							
9-23-64	63	7.4	1105	--	--	--	--	0	161	294	94	--	--	--	--	--	--	
									2.64	6.12	2.65							
4S/ 9W- 6G 2 S 9-23-64	--	7.4	1155	--	--	--	--	0	180	289	101	--	--	--	--	--	--	
									2.95	6.02	2.85							
4S/10W- 1B 1 S 4-15-64	--	7.5	1093	109	24	95	5	0	153	302	96	--	--	--	0.8	23	753	
				5.44	1.97	4.13	0.13	2.51	6.29	6.29	2.71	2.9	0.05	0.05	0.05	0.05	0.05	371
				47	17	35	1	22	54	54	23							733
9-23-64	67	7.6	1081	--	--	--	--	0	141	--	93	--	--	--	--	--	--	
									2.31	--	2.62							
4S/10W- 1F 1 S 3-24-64	--	7.8	1287	119	24	82	5	0	193	271	96	--	--	--	0.6	18	768	
				5.94	1.97	3.57	0.13	3.16	5.64	5.64	2.71	18	0.29	0.29	0.29	0.29	0.29	396
				51	17	31	1	27	48	48	23							728
4S/10W- 4R 5 S 3-24-64	--	7.7	1040	121	25	63	5	0	259	174	98	--	--	--	0.4	--	--	572
				6.04	2.06	2.74	0.13	4.25	3.62	3.62	2.76	18	0.29	0.29	0.29	0.29	0.29	405
				55	19	25	1	39	33	33	25							632
4S/10W- 6P 1 S 7- 3-64	66	7.9	630	75	17	42	3	0	246	77	43	--	--	--	0.4	--	--	428
				3.74	1.40	1.83	0.08	4.03	1.60	1.60	1.21	8	0.13	0.13	0.13	0.13	0.13	257
				53	20	26	1	58	23	23	17							386

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent reactance value				Mineral constituents in parts per million						
				Calcium M g	Magne-sium M g	Sod-ium Na	Potas-sium K	Carbon-ate CO ₃	Bicarb-onate HCO ₃	Sulfate SO ₄	Chlo-ride Cl	Nitrate NO ₃	Fluor-ide F	Boron B	Sil-ica SiO ₂	I.D.S. Evap. Resid. as Computed	Total Hardness as CaCO ₃	
L A SAN GABRIEL RIVER HYDRO UNIT U0500																		
ANAHEIM HYDRO SUBUNIT U0500				ANAHEIM HYDRO SUBAREA U05F1														
4S/10W-7Q 2 S 4-20-64	--	7.9	682	75 3.74 53	16 1.32 19	45 1.96 28	3 0.08	0	0	263 4.31 60	86 1.79 25	39 1.10 15	0	0.3	0.07	14	420 408	253
4S/10W-18C 2 S 4-16-64	--	7.7	833	102 5.09 58	19 1.56 18	48 2.09 24	4 0.10	0	0	270 4.43 50	96 2.00 23	71 2.00 23	22 0.35 4	0.4	0.06	--	543 495	333
4S/11W-4M 1 S 7- 3-64	--	8.1	480	43 2.15 43	13 1.07 22	39 1.70 34	2 0.05	0	0	227 3.72 77	29 0.60 12	19 0.54 11	0.0	0.6	0	--	268 257	161
4S/11W-8B 2 S 7- 3-64	--	8.2	490	34 1.70 34	15 1.23 25	45 1.96 40	2 0.05	0	0	226 3.70 75	39 0.81 16	15 0.42 9	0.0	0.4	0.10	--	284 262	147
4S/11W-8P 2 S 1-28-64	--	7.8	461	44 2.20 47	10 0.82 17	38 1.65 35	2 0.05	0	0	226 3.70 76	35 0.73 15	16 0.45 9	1.2 0.02	0.5	0.05	--	294 258	151
6-16-64	--	7.9	459	45 2.25 45	10 0.82 16	43 1.87 37	2 0.05	0	0	229 3.75 75	36 0.75 15	18 0.51 10	0.6 0.01	0.5	0.05	--	230 268	154
4S/11W-9A 1 S 7- 3-64	--	8.1	480	46 2.30 45	12 0.99 19	40 1.74 34	2 0.05	0	0	237 3.88 78	35 0.73 15	14 0.39 8	0.0	0.4	0.08	--	278 266	165
4S/11W-12E 1 S 10- 9-63	--	8.0	788	90 4.49 53	18 1.48 17	56 2.43 29	3 0.08	--	--	272 4.46 54	120 2.50 30	47 1.33 16	0.0	0.6	0.09	18	474 486	299

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Date sampled	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per percent					Mineral constituents in parts per million				
					Calcium Ca	Magne- sium Mg	Sodium Na	potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fluo- ride F	Boron B	Sil- ico SiO ₂	I.O.S. Expt. 180°C	Total hardness as CaCO ₃	
L A SAN GABRIEL RIVER HYDRO UNIT U0500																			
ANAHEIM HYDRO SUBUNIT U05F0																			
ANAHEIM HYDRO SUBAREA U05F1																			
4S/11W-12E 1 S 6-19-64		--	7.8	840	91 4.54 53	18 1.48 17	58 2.52 29	3 0.08 1	0	279 4.57 52	132 2.75 31	52 1.47 17	0.0	0.6	0.08	--	502 492	301	
4S/11W-12F 2 S 12-10-63		--	7.7	658	76 3.79 58	13 1.07 16	37 1.61 25	3 0.08 1	0	239 3.92 58	77 1.60 24	38 1.07 16	10.0 0.16 2	0.7	0.02	--	403 372	243	
4S/11W-12R 1 S 1-28-64		--	7.6	865	105 5.24 59	20 1.64 19	43 1.87 21	4 0.10 1	0	269 4.41 49	118 2.46 28	60 1.69 19	22.0 0.35 4	0.6	0.05	--	533 505	344	
6-16-64		--	8.0	877	1.6 5.29 57	2.0 1.64 18	51 2.22 24	5 0.13 1	0	268 4.39 49	120 2.50 28	62 1.75 19	22.0 0.35 4	0.5	0.06	--	516 518	347	
7- 3-64		66	8.1	830	79 3.94 44	35 2.88 32	46 2.00 22	4 0.10 1	0	263 4.31 47	125 2.60 29	66 1.86 20	22.0 0.35 4	0.2	0.10	--	566 507	341	
4S/11W-12R 6 S 4-16-64		--	7.3	806	99 4.94 59	15 1.23 15	50 2.17 26	4 0.10 1	0	231 3.79 44	150 3.12 36	55 1.55 18	9.9 0.16 2	0.7	0.07	--	542 497	309	
4S/11W-15M 1 S 10- 9-63		25	8.0	438	--	--	--	--	--	221 3.62	--	11 0.31	--	--	--	--	--	158	
6-19-64		--	8.0	460	45 2.25 47	11 0.90 19	36 1.57 33	2 0.05 1	0	222 3.64 76	37 0.77 16	14 0.39 8	0.0	0.6	0.05	--	260 255	158	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million percent reactance value				Mineral constituents in parts per million				
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Flu- ride F	Bor- on B	Sil- ica SiO ₂	Total Hardness as CaCO ₃
L A SAN GABRIEL RIVER HYDRO UNIT U0500																
ANAHEIM HYDRO SUBUNIT U05F0																
ANAHEIM HYDRO SUBAREA U05F1																
4S/11W-16E 1 S 7-3-64	--	7.8	470	46 2.30 43	16 1.32 25	39 1.70 32	0 0.05	2 0	4.02 78	31 0.65 13	17 0.48 9	0.0	0.4	0.10	--	284 181
4S/11W-16J 4 S 3-24-64	--	7.8	660	80 3.99 58	14 1.15 17	38 1.65 24	3 0.08	0 1	4.51 64	68 1.42 20	39 1.10 16	0.6 0.01	0.5	0.05	--	396 257
4S/11W-17P 6 S 4-17-64	--	7.7	455	42 2.10 44	13 1.07 23	35 1.52 32	2 0.05	0 1	2.32 3.80 76	32 0.67 13	18 0.51 10	0.0	0.3	0.06	--	291 159
4S/11W-19J 1 S 10-9-63	25	7.9	456	--	--	--	--	--	219 3.59	--	14 0.39	--	--	--	--	256
6-19-64	68	8.1	450	45 2.25 45	9 0.74 15	44 1.91 39	2 0.05	0 1	2.21 3.62 72	44 0.92 18	17 0.48 10	0.0	0.4	0.05	--	264 150
4S/11W-19J 3 S 3-24-64	--	8.0	440	44 2.20 44	11 0.90 18	42 1.83 37	2 0.05	0 1	2.28 3.74 74	39 0.81 16	18 0.51 10	0.0	0.3	0.04	--	270 155
4S/11W-20R 2 S 4-16-64	--	8.0	476	52 2.59 51	12 0.99 19	34 1.48 29	2 0.05	0 1	2.28 3.74 70	48 1.00 19	21 0.59 11	0.0	0.5	0.04	--	297 179
4S/11W-21L 1 S 1-15-64	--	7.7	752	90 4.49 58	18 1.48 19	41 1.78 23	2 0.05	0 1	2.54 4.16 53	107 2.23 28	52 1.47 19	0.0	0.7	0.02	--	468 251 436

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Date sampled	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million										Mineral constituents in parts per million				
					Calcium sum	Magnesium sum	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	Total Hardness as CaCO ₃	Iron	Copper
4S/11W-29C 1 S 6-12-64		--	7.8	470	41 2.05 38	19 1.56 29	39 1.70 32	2 0.05	0	0	239 3.92 72	49 1.02 19	18 0.51 9	0.0	0.4	0.07	16	280 302	181
4S/11W-30E 1 S 6-12-64		--	8.1	440	31 1.55 34	13 1.07 23	44 1.91 42	2 0.05	0	0	206 3.38 74	36 0.75 16	15 0.42 9	0.0	0.4	0.12	--	270 243	131
4S/11W-30M 4 S 6-12-64		57	8.0	395	26 1.30 28	15 1.23 27	47 2.04 44	1 0.03	0	0	200 3.28 74	37 0.77 17	14 0.39 9	0.0	0.4	0.09	19	248 258	127
4S/11W-31D 1 S 6-12-64		--	8.2	400	29 1.45 34	2 0.16 4	61 2.65 62	1 0.03	0	0	178 2.92 70	35 0.73 18	18 0.51 12	0.0	0.4	0.10	--	248 234	81
4S/11W-31F 5 S 6-12-64		57	8.0	410	36 1.80 39	11 0.90 19	44 1.91 41	2 0.05	0	0	208 3.41 76	37 0.77 17	11 0.31 7	0.0	0.2	0.13	18	238 262	135
4S/11W-31P 1 S 6-12-64		--	8.1	355	8 0.40 10	2 0.16 4	75 3.26 85	1 0.03	0	0	159 2.61 67	34 0.71 18	20 0.56 14	0.0	0.4	0.12	--	242 219	28
4S/12W-36J 1 S 6-12-64		57	8.0	420	26 1.30 29	13 1.07 24	48 2.09 46	2 0.05	0	0	200 3.28 73	39 0.81 18	14 0.39 9	0.0	0.2	0.09	18	262 259	119
5S/12W-1A 3 S 6-11-64		--	8.8	338	6 0.30 8	2 0.16 4	71 3.09 86	1 0.03	10 0.33	0	142 2.33 64	30 0.62 17	13 0.37 10	0.0	0.7	0.07	18	185 222	23

L A SAN GABRIEL RIVER HYDRO UNIT U0500

U05F0

ANAHEIM HYDRO SUBUNIT

U05F1

ANAHEIM HYDRO SUBAREA

TABLE E-1
 MINERAL ANALYSES OF GROUND WATER 1963/64
 LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million				Mineral constituents in parts per million				
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Fluoride	Barium	Silica	Total Hardness	
Date sampled				Co	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	F	B	SiO ₂	as CaCO ₃	
L A SAN GABRIEL RIVER HYDRO UNIT U0500																
ANAHEIM HYDRO SUBUNIT U05F0																
ANAHEIM HYDRO SUBAREA U05F1																
55/12W-1B 1 S 6-11-64	--	7.9	450	40 2.00 40	12 0.99 20	46 2.00 40	0.05 0	2 0	216 3.54 73	40 0.83 17	18 0.51 10	0.0	0.14	16	280 281	150
LA HABRA HYDRO SUBAREA																
35/10W-4D 1 S 1-8-64	25	7.6	1695	131 6.54 35	60 4.93 27	158 6.87 37	0.13	5 1	369 6.05 33	426 8.87 48	124 3.50 19	0.0	0.15	37	1112 1123	574
9-28-64	81	7.5	1588	--	--	--	--	0	350 5.74	--	119 3.36	0.0	--	--	--	--
35/10W-4D 2 S 1-8-64	79	7.7	1613	111 5.54 33	49 4.03 24	164 7.13 42	5 0.13	--	323 5.29 32	387 8.06 48	118 3.33 20	0	0.18	40	1016 1036 1034	479
9-28-64	80	7.5	1680	131 6.54 34	57 4.69 25	175 7.61 40	6 0.15	0	329 5.39 29	484 10.08 54	115 3.24 17	0.0	0.37	33	1232 1164	562
35/10W-7H 3 S 3-20-64	--	7.3	1564	--	--	--	--	0	283 4.64	--	275 7.76	80.0 1.29	--	--	--	--
9-28-64	--	7.2	1540	--	--	--	--	0	279 4.57	--	276 7.78	74.0 1.19	--	--	--	--

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent reactance value				Mineral constituents in parts per million				
				Calcium M g	Magne- sium M g	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fluo- ride F	Boron B	Stron- tium SiO ₂	I.D.S. Evap 105°C as Computed
ANAHEIM HYDRO SUBUNIT U05F0																
LA HABRA HYDRO SUBAREA U05F2																
3S/10W-9H 1 S 3-30-64	--	7.5	1027	--	--	--	--	0	343 5.62	--	43 1.21	89.0 1.44	--	--	--	--
9-28-64	--	7.4	1059	--	--	--	--	0	331 5.43	--	47 1.33	99.0 1.60	--	--	--	--
3S/10W-10M 1 S 3-30-64	--	7.7	968	--	--	--	--	0	275 4.51	--	102 2.88	41.0 0.66	--	--	--	--
9-28-64	--	7.6	950	--	--	--	--	0	260 4.26	--	103 2.90	43.0 0.69	--	--	--	--
3S/10W-15B 1 S 3-30-64	--	7.6	1081	78 3.89 35	36 2.96 27	96 4.17 38	4 0.10 1	0	215 3.52 32	232 4.83 43	59 2.79 25	1.8 0.03	0.4	0.10	17	708 343
9-28-64	--	7.5	1271	88 4.39 33	43 3.54 26	123 5.35 40	5 0.13 1	0	245 4.02 30	288 6.00 44	117 3.30 24	14.0 0.23	0.4	0.11	30	670 397
3S/10W-16M 1 S 3-30-64	--	8.0	1037	82 4.09 37	28 2.30 21	102 4.43 41	4 0.10 1	0	151 2.47 23	286 5.95 55	84 2.37 22	0.0	0.4	0.13	8	690 320
9-28-64	--	7.5	1105	82 4.09 37	29 2.38 21	104 4.52 41	5 0.13 1	0	132 2.16 19	307 6.39 56	98 2.76 24	0.0	0.4	0.11	10	761 324

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent reactance value				Mineral constituents in parts per million						
				Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Sulfate SO ₄	Iron Fe	Copper Cu	Zinc Zn
ANAHEIM HYDRO SUBUNIT U05F0																		
YORBA LINDA HYDRO SUBAREA U05F3																		
2S/ 8W-30N 1 S 7-21-64	--	7.8	1330	112 5.59	32 2.63	168 7.30	0.03	1	0	534 8.75	208 4.33	87 2.45	2.0 0.03	0.7	0.61	44	910 918	4.11
2S/ 9W-36A 3 S 7-1-64	--	7.6	1387	86 4.29	58 4.77	158 6.87	6 0.15	6	0	495 8.11	239 4.98	100 2.82	8.5 0.14	0.6	0.10	30	920 930	4.53
3S/ 9W-2P 1 S 3-24-64	--	8.2	6777	--	--	--	--	--	0	3331 54.60	--	915 25.80	--	--	5.10	--	--	--
9-28-64	110	7.8	6558	--	--	--	--	--	0	3087 50.60	--	915 25.80	0.0	--	--	--	--	--
3S/ 9W-19B 2 S 3-24-64	--	7.7	1196	--	--	--	--	--	0	438 7.18	--	100 2.82	35 0.56	--	--	--	--	--
9-28-64	--	7.5	1337	175 6.24	47 3.87	99 4.30	5 0.13	5	0	429 7.03	144 3.00	121 3.41	52.0 0.84	0.4	0.04	36	910 84.0	5.06
3S/ 9W-21D 1 S 3-24-64	--	7.9	1048	43	27	30	1	1	0	49	21	24	6	--	--	--	--	--
9-28-64	--	7.8	1037	--	--	--	--	--	0	429 7.03	--	63 1.78	0.0	--	--	--	--	--
9-28-64	--	7.8	1037	--	--	--	--	--	0	406 6.65	--	64 1.80	0.0	--	--	--	--	--

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million										Mineral constituents in parts per million				
				Calcium Mg	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fluo- ride F	Baron B	Sili- co SiO ₂	Iron Fe	Cop- per Cu	Zinc Zn
ANAHEIM HYDRO SUBUNIT																		
YORBA LINDA HYDRO SUBAREA																		
U05FO																		
U05F3																		
35/ 9W-21D 2 S 3-24-64	--	7.9	996	--	--	--	0	410 6.72	--	62 1.75	0.4 0.01	--	--	--	--	--	--	
9-28-64	--	7.6	1027	--	--	0	406 6.65	--	62 1.75	0.0	--	--	--	--	--	--	--	
35/ 9W-21M 1 S 4-15-64	--	7.0	1495	--	--	0	356 5.83	209 5.89	97 1.56	--	--	--	--	--	--	--	--	
9-28-64	--	7.4	1337	120 5.99 43	33 2.71 19	119 5.17 37	0.08 1	3 1	86 1.70 13	177 4.99 36	82.0 1.32 10	0.2	35	807 827	435	--	--	
35/ 9W-21M 2 S 4-15-64	--	7.6	959	--	--	--	0	405 6.64	70 1.97	0	--	--	--	--	--	--	--	
9-28-64	71	7.9	941	--	--	--	--	382 6.26	70 1.97	0	--	--	--	--	--	--	--	
35/ 9W-22C 2 S 6-24-64	164	8.3	960	40 2.00 19	67 5.51 53	65 2.83 27	5 0.13 1	7 0.23 2	19 0.40 4	46 1.30 12	0	0.15	--	592 506	376	--	--	
35/ 9W-22C 3 S 6-24-64	132	7.9	1480	40 2.00 12	134 11.02 64	89 3.87 23	8 0.20 1	0 13.57 79	92 1.92 11	60 1.69 10	2.7 0.04	0.2	0.37	960 833	652	--	--	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				Mineral constituents in parts per million				Mineral constituents in parts per million			
				Calcium Co.	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂
ANAHEIM HYDRO SUBUNIT															
YORBA LINDA HYDRO SUBAREA															
U05F0															
U05F3															
3S/ 9W-22D 1 S 6-24-64	150	8.4	860	33 1.65 17	59 4.85 51	68 2.96 31	0.10 0.43 1	4 13 0.43	466 7.64 80	5 0.10 1	50 1.41 15	0.2 0.12	-- --	514 462	325
3S/ 9W-28L 2 S 2-24-64	--	7.4	1303	--	--	--	--	0	342 5.61	--	265 7.47	--	--	--	--
9-23-64	--	7.3	1303	--	--	--	--	0	324 5.31	--	263 7.42	--	--	--	--
3S/ 9W-32H 3 S 4-15-64	--	7.6	1271	127 6.34 46	30 2.67 18	109 4.74 35	0.13 0.13 1	5 4.33 32	264 4.33 32	280 5.83 43	107 3.02 22	0.6 0.03	20	864 836	441
9-23-64	--	7.6	1271	--	--	--	--	0	31 3.79	301 6.27	110 3.10	--	--	--	--
3S/ 9W-32P 3 S 4-15-64	--	7.2	1081	--	--	--	--	0	187 3.06	251 5.23	97 2.74	--	--	--	--
9-23-64	--	7.3	1105	--	--	--	--	0	152 2.49	276 5.75	101 2.85	--	--	--	--
3S/ 9W-33H 1 S 3-24-64	--	7.8	916	--	--	--	--	0	275 4.51	121 2.52	84 2.37	--	--	--	--

TABLE E-1
 MINERAL ANALYSES OF GROUND WATER 1963/64
 LOS ANGELES DRAINAGE PROVINCE (U)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in				parts per million equivalents per million reactance value				Mineral constituents in parts per million			
				Ironium Co	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Bicarbonate B	Silica SiO ₂
ANAHEIM HYDRO SUBUNIT															
YORBA LINDA HYDRO SUBAREA															
U05F0															
U05F3															
3S/ 9W-33K 1 S 4-15-64	--	7.3	1048	--	--	--	--	0	210 3.44	237 4.93	92 2.59	--	--	--	
3S/ 9W-34G 1 S 4- 6-64	--	7.8	900	--	--	--	--	0	275 4.51	113 2.35	87 2.45	--	--	--	
3S/ 9W-34H 1 S 4- 6-64	--	7.8	900	--	--	--	--	0	274 4.49	--	74 2.09	--	--	--	
3S/ 9W-34M 1 S 3-24-64	--	7.6	1225	--	--	--	--	0	238 3.90	293 6.10	99 2.79	--	--	--	
3S/ 9W-350 1 S 4- 6-64	--	7.8	1117	90 4.49 39	25 2.06 18	109 4.74 42	4 0.10 1	0	164 2.69 23	295 6.14 53	94 2.65 23	2.4 0.04	0.5 0.10 14	328 733 715	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in							parts per million equivalents per million percent reactance value					Mineral constituents in parts per million				
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	No- trate NO ₃	F F	B B	Sio ₂ Sio ₂	TDS Evap 100°C Evap 105°C Compared to ...				
OWENS HYDRO UNIT																				
LONG HYDRO SUBUNIT				W0340													W0300			
357246-330 1-21-63	--	6.5	320	20 1.00 31	4 0.33 10	40 1.74 54	7 0.18 0	0	0 0	117 1.72 60	17 0.35 11	17 0.35 11	17 0.35 11	0.2 0.2	0.2 0.2	2.06 2.06	261 240			
11-4-63	--	7.3	320	22 0.75	2 0.66	41 1.78	7 0.18	0	0	124 1.77	16 0.33	16 0.33	16 0.33	0.6 0.6	0.6	1.43 1.43	254 248			
12-10-63	--	7.3	363	17 0.85	8 0.66	44 1.71	8 0.20	0	0	124 2.23	18 0.40	18 0.40	18 0.40	0.2 0.2	0.2	1.48 1.48	276 261			
1-13-64	--	7.3	330	16 0.80	7 0.58	45 1.96	7 0.18	0	0	128 2.10	16 0.33	16 0.33	16 0.33	0.0 0.0	0.0	1.53 1.53	273 267			
2-3-64	--	6.8	348	16 0.80	6 0.49	46 2.00	7 0.18	0	0	121 1.98	23 0.48	23 0.48	23 0.48	0.0 0.0	0.0	1.48 1.48	277 267			
3-25-64	--	7.1	315	14 0.70	7 0.59	40 1.74	6 0.15	0	0	117 1.62	19 0.37	19 0.37	19 0.37	0.0 0.0	0.0	1.46 1.46	270 261			
4-25-64	--	7.1	410	31 1.55	19 0.74	59 2.61	5 0.20	0	0	175 2.07	11 0.40	11 0.40	11 0.40	0.0 0.0	0.0	1.68 1.68	300 284			
5-11-64	--	6.9	350	24 1.20	17 0.66	41 1.78	7 0.18	0	0	153 2.05	17 0.40	17 0.40	17 0.40	0.0 0.0	0.0	1.68 1.68	300 284			

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million						parts per million equivalents per million percent reactance value					Mineral constituents in parts per million			
				Calcium Mg	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Iron Fe	Copper Cu	Zinc Zn
3S/28E-34R 1 M 10-21-63	--	7.7	205	13 0.65	5 0.41	23 1.00	5 0.13	0	0	110 1.80	10 0.21	5 0.14	0.0	0.2	0.31	46	166	53
11- 4-63	--	8.1	210	11 0.55	7 0.58	23 1.00	5 0.13	0	0	114 1.87	6 0.17	5 0.14	0.0	0.2	0.24	--	166	57
11-19-63	--	7.8	220	10 0.50	8 0.66	23 1.00	5 0.13	0	0	117 1.92	9 0.19	4 0.11	0.0	0.2	0.26	--	166	58
12-10-63	--	7.2	215	11 0.55	7 0.58	23 1.00	5 0.13	0	0	118 1.93	7 0.15	4 0.11	0.0	0.2	0.26	45	170	57
1-13-64	--	7.2	210	12 0.60	5 0.41	23 1.00	5 0.13	0	0	116 1.90	6 0.12	4 0.11	0.0	0.4	0.27	47	140	51
2- 3-64	--	7.6	220	20 1.00	4 0.33	24 1.04	5 0.13	0	0	129 2.11	8 0.17	5 0.14	0.0	0.2	0.33	47	162	67
3-20-64	--	7.9	224	12 0.60	7 0.58	23 1.00	4 0.10	0	0	126 2.07	7 0.15	5 0.14	0.0	0.1	0.33	43	136	59
5-11-64	--	7.7	225	13 0.65	7 0.58	24 1.04	5 0.13	0	0	111 1.82	12 0.25	11 0.31	0.0	0.2	0.33	--	144	62
				27	24	43	5		76	11	13						121	

W0300

OWENS HYDRO UNIT

W03A0

LOWE'S HYDRO SUBUNIT

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos of 25°C)	Mineral constituents in parts per million				parts per million equivalents per million percent reactivity value				Mineral constituents in parts per million					
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Flu- oride F	Boron B	Sul- fur S	CO ₂	Evap- orated Solids Computed
Date sampled																	
VALJEAN HYDRO SUBUNIT W0990																	
VALJEAN HYDRO SUBAREA W099B3																	
18N/7E-30D 1 S 5- 4-64	77	8.2	17400	13.12 9	187 15.38 11	2600 113.05 79	65 1.66 1	0	9.64 7	1105 23.01 16	3883 109.50 77	0.0	9.0	4.30	27	801E 8452	1426
SHADOW HYDRO SUBAREA W099B4																	
15N/12E-16H 1 S 5- 6-64	70	8.3	560	0.60 9	8 0.66 1	116 5.04 79	4 0.10 2	5 0.17 3	248 4.06 65	43 0.90 14	30 0.85 14	14.0 0.23 4	1.8	0.40	35	400 391	63
16N/12E-26N 1 S 5- 6-64	--	8.1	1260	117 5.84 38	75 6.17 40	74 3.22 21	5 0.13 1	0 2.61 17	159 5.49 11	549 11.43 75	39 1.10 7	0.0	0.6	0.25	22	107E 961	601
16N/12E-28D 2 S 5- 6-64	70	7.9	820	49 2.45 26	35 2.88 39	93 4.04 43	4 0.10 1	0 3.29 35	204 4.25 45	66 1.86 20	66 1.86 20	3.3 0.05 1	1.0	0.26	26	60E 580	767

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million			parts per million				Total hardness as CaCO ₃		
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Barytes Ba		Sulfide S ₂	I.D.S. Extr. 180°C
AMARGOSA HYDRO SUBUNIT																	
AMARGOSA HYDRO UNIT																	
W09DU																	
W09DL																	
22N/7E-30E 1 S	9.1	8.4	148.0	35	32	260	21	16	355	244	156	0.0	1.8	3.90	36	954	219
5-4-64				1.75	2.63	11.30	0.54	0.53	5.82	5.08	4.40					980	
				11	16	70	3	3	37	32	28						

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Date sampled	Temp when sampled in F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per million reactance value				Mineral constituents in parts per million				
					Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fluo- ride F	Boron B	Sili- ca SiO ₂	Total hardness as CaCO ₃	I.D.S. Exp. 180°C
21N/10E-3M 1 S 5-4-64		--	7.4	570	45	31	24	2	0	189	103	12	12.0	0.4	0.14	22	398	240
					2.75	2.55	1.04	0.05		3.10	2.14	0.34	0.19		6	3		
22N/11E-34A 2 S 5-4-64		70	8.0	500	48	24	29	2	0	234	70	7	1.2	0.4	0.10	28	356	219
					2.40	1.37	1.26	0.05		3.84	1.46	0.20	0.02		4			
P05/52E-35A 1 V 5-4-64		--	8.0	480	32	28	36	10	0	278	38	12	0.0	0.2	0.18	15	316	195
					1.60	2.30	1.57	0.26		4.56	0.79	0.34			6			
P 5/52E-35A 2 V 5-4-64		--	8.0	470	36	38	14	5	0	262	37	16	0.0	0.2	0.06	25	292	247
					1.80	3.13	0.61	0.13		4.29	0.77	0.45			8			
					32	55	11	2		78	14							

w1000

PAHRUMP HYDRO UNIT

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million							Mineral constituents in parts per million					
				Calcium Mg	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fluo- ride F	Baron B	Sili- co SiO ₂	IO ₃ Exop. IO ₃ Exop. IO ₃ Compared
19N/12E-14C 1 S 5- 5-64	67	7.9	7500	194 9.68 10	204 16.78 18	1525 66.31 71	45 1.15 1	0	2.77 3	613 12.76 14	2777 78.31 83	0.8 0.01	0.2 0.01	33 0.20	5467 54.75	1374
19N/12E-14D 2 S 5- 5-64	68	8.0	1300	126 6.29 36	112 9.21 52	48 2.09 12	3 0.08	0	3.98 22	587 12.22 69	52 1.47 8	10.0 0.16 1	0.6 0.01	49 0.46	1200 1107	776
19N/12E-26H 1 S 5- 5-64	70	7.8	1140	60 2.99 24	45 3.70 30	126 5.48 44	7 0.18 1	0	2.49 4.08 33	207 4.31 36	146 4.12 33	0.0 0.0	0.8 0.0	21 0.18	740 736	335
19N/13E-19p 1 S 5- 5-64	66	8.1	2500	20 1.00 4	76 2.14 8	500 21.74 83	53 1.36 5	0	2.93 4.80 18	224 4.66 18	585 16.50 64	0.0 0.0	1.0 0.2	47 0.20	1526 1600	157
25S/5/E- 5G 1 M 5- 5-64	--	8.1	725	81 4.04 47	35 2.88 33	38 1.65 19	2 0.05 1	0	2.75 4.51 51	171 3.56 40	28 0.79 9	1.7 0.03	0.2 0.03	17 0.20	510 510	946

MESQUITE HYDRO UNIT w1100

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million										Mineral constituents in parts per million				
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Sulfide S ₀₂	Total dissolved solids TDS	Total dissolved solids TDS Computed	
27S/59E-8P 1 W 5- 6-64	--	8.2	3700	18 0.90	0	840 36.52	6 0.15	0	0	246 4.03	217 4.52	1039 29.30	4.5	3.0	1.60	11	2228	45
14N/13E-13H 1 S 5- 6-64	68	8.2	400	32 1.60	1 0.82	40 1.74	1 0.33	0	0	165 2.70	25 0.52	32 0.70	0.0	0.2	0.10	10	232	141
14N/16E-22M 1 S 5- 7-64	--	7.7	2400	38 1.90	20 1.00	42 1.86	1 0.45	0	0	66 1.10	13 0.28	22 0.49	0.0	1.0	0.48	19	231	1037
15N/15E-56J 1 S 5- 6-64	--	7.9	860	47 2.35	21 1.05	32 1.42	0.15 0.66	0	0	5 0.11	78 3.54	17 0.77	4.5	1.4	0.20	21	2054	140
16N/15E-120 1 S 5- 6-64	--	8.0	630	23 1.15	18 0.81	86 3.74	5 0.22	0	0	157 2.57	40 0.83	100 2.82	11.0	0.8	0.28	23	372	172
16N/16E-33M 1 S 5- 6-64	--	8.5	490	8 0.40	5 0.22	104 4.52	2 0.05	8 0.27	8 1.34	117 1.92	39 0.81	63 1.78	12.0	1.6	0.28	21	376	200
				8		91	1	5	5	39	16	36	4				316	

W1200

IVANPAH HYDRO UNIT

*Well 15N/15E-56J is 15N/15E-201L. Number was modified for machine data processing.

TABLE E-1
 MINERAL ANALYSES OF GROUND WATER 1963/64
 LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million reactance value				Mineral constituents in parts per million				
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Bromine Br	Calcium Ca	Sulfate SO ₄
12N/ 2E-32G 1 S 4-29-64	67	8.0	1220	38 1,900 14	6 0.49 4	245 10.65 81	3 0.08 1	0	114 1.87 14	262 5.45 42	203 5.72 44	0.0	2.0	0.82	28 84.4 84.4	126

W1800

COYOTE HYDRO UNIT

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp when sampled in F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million percent reactance value				Mineral constituents in parts per million							
				Calcium Cc	Magnesium Mg	Sodium No	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Barsium Ba	Silica SiO ₂	Iron Fe	Manganese Mn	Copper Cu	Zinc Zn
ANTELOPE HYDRO SUBUNIT W2600																			
NEENACH HYDRO SUBAREA W26A1 W26A4																			
8N/14W-6E 1 S 3-26-64	--	7.3	307	20 1.00	8 0.66	38 1.05	1 0.03	0	1 0.03	1 0.03	22 0.46	18 0.51	1.0	0.7	0.50	28	200	83	
8N/15W-10P 1 S 3-26-64	--	7.9	370	37 1.85	4 0.33	41 1.78	2 0.05	--	2 0.05	2 0.05	29 0.60	15 0.42	20.0	0.6	0.11	32	756	169	
8N/15W-33G 2 S 3-26-64	--	7.7	350	42 2.10	8 0.66	24 1.04	2 0.05	0	2 0.05	2 0.05	12 0.29	4 0.11	11.0	0.4	0.05	21	228	136	
8N/16W-60 1 S 3-26-64	--	7.8	450	46 2.30	17 1.40	35 1.52	2 0.05	0	2 0.05	2 0.05	207 3.39	50 1.04	17.0	0.4	0.22	36	374	185	
LANCASTER VALLEY HYDRO SUBAREA W26A5																			
6N/10W-5H 1 S 3-25-64	--	8.2	360	48 2.40	11 0.90	19 0.83	3 0.08	0	3 0.08	3 0.08	43 3.15	5 0.20	0.9	0.2	0.09	18	226	165	
6N/11W-1B 1 S 3-31-64	--	7.7	301	26 1.30	5 0.41	28 1.22	2 0.05	0	2 0.05	2 0.05	120 1.97	23 0.48	1.0	0.2	0	--	177	86	
6N/11W-21N 1 S 3-27-64	--	7.8	300	33 1.65	5 0.41	24 1.04	2 0.05	0	2 0.05	2 0.05	145 2.38	24 0.50	2.6	0.2	0.05	19	184	104	
				52	13	33	2		2		76	15	0.04				188		

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent				Mineral constituents in parts per million				
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fluo- ride F	Boron B	Sul- fur S	I.D.S. Evap (10°C) Evap (25°C) Computed
6N/12W-8R 1 S 3-31-64	--	7.9	409	20 1.00	6 0.49	58 2.52	3 0.08	0	153 2.51	43 0.90	25 0.71	1.5 0.02	0	0.5	243	75
7N/9W-30F 1 S 3-25-64	--	8.0	385	24 2.10	12 0.66	62 1.61	2 0.08	0	61 2.88	22 1.27	17 0.20	0.8 0.01	0.14	0.4	232	138
7N/10W-6R 1 S 3-25-64	--	8.0	300	47 3.33	15 0.16	36 1.52	2 0.05	--	66 2.39	29 0.79	5 0.11	0.0	0.09	0.2	267	91
7N/12W-7B 2 S 3-31-64	--	7.8	416	49 3.9	5 0.66	45 1.74	1 0.03	0	73 3.08	24 0.42	3 0.65	10.0 0.16	0.32	0.4	204	131
7N/12W-34J 1 S 3-27-64	--	8.0	250	27 0.70	3 0.08	69 1.78	1 0.03	0	81 2.02	13 0.33	4 0.11	1.7 0.03	0.11	0.2	234	39
7N/13W-7J 1 S 5-4-64	--	7.8	650	40 3.19	8 2.55	40 2.17	1 0.03	0	71 5.52	10 0.67	15 1.18	4 0.47	0.12	0.1	158	287
7N/13W-35E 1 S 3-27-64	--	7.5	585	28 1.70	3 0.16	69 4.17	0.03	0	39 2.33	26 1.56	29 1.72	6 0.35	0.16	0.4	444	93
7N/14W-10 1 S 5-4-64	74	8.0	370	46 1.80	19 0.74	34 1.35	2 0.05	0	69 2.62	10 0.40	13 0.48	8 0.32	0.08	0.2	379	177

ANTELOPE HYDRO SUBUNIT W2600

ANTELOPE HYDRO SUBUNIT W26A0

LANCASTER VALLEY HYDRO SUBAREA W26A5

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				million milliequivalents per million				Mineral constituents in parts per million			
				Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total Dissolved Solids mg/l	Total Hardness as CaCO ₃		
ANTELOPE HYDRO SUBUNIT																			
LANCASTER VALLEY HYDRO SUBAREA W26A0																			
7N/14W-10F 1 S 3-25-64	--	7.9	320	34 1.70 50	2 0.16 5	35 1.52 44	0.05 0	2 1	0 2.51 75	153 0.15 4	7 0.37 4	13 0.31 11	19.0 0.31 3	0.2 0.2	0.07 0.2	24 214 211	93 79 79		
8N/12W-21C 1 S 3-25-64	--	8.0	350	25 1.25 33	4 0.33 9	51 2.22 58	1 0.03 1	0 2.18 59	133 2.18 59	24 0.50 14	24 0.90 24	32 0.90 24	7.0 0.11 3	0.6 0.2	0.53 0.05	23 168 175	79 99 99		
8N/12W-34P 2 S 3-26-64	--	7.5	260	33 1.65 55	4 0.33 11	23 1.00 33	1 0.03 1	0 2.64 90	161 2.64 90	11 0.23 8	11 0.23 8	2 0.06 2	0.0 0.0	0.2 0.2	0.05 0.05	22 168 175	99 99 99		
8N/13W-23M 3 S 3-25-64	--	7.9	450	38 1.90 40	5 0.41 9	54 2.35 50	2 0.05 1	0 2.61 56	159 2.61 56	43 0.90 19	43 0.90 19	35 0.99 21	7.2 0.12 3	0.4 0.4	0.43 0.43	23 300 286	116 116 116		
8N/13W-32N 1 S 3-26-64	--	8.1	600	53 2.64 38	19 1.56 22	62 2.70 39	2 0.05 1	0 4.26 62	260 4.26 62	38 0.79 11	38 0.79 11	52 1.47 21	23.0 0.37 5	0.4 0.6	2.73 0.13	28 426 408	210 210 210		
BUTTES HYDRO SUBAREA W26A7																			
6N/10W-130 1 S 5-14-64	--	7.9	407	43 2.15 49	12 0.99 25	27 1.17 27	2 0.05 1	0 2.88 69	176 2.88 69	48 1.00 24	48 1.00 24	11 0.31 7	0.0 0.0	0.6 0.6	0.13 0.13	-- 247 230	157 157 157		
6N/11W-36G 1 S 3-31-64	--	7.9	241	27 1.35 53	6 0.49 19	15 0.65 26	2 0.05 2	0 2.03 81	124 2.03 81	14 0.29 12	14 0.29 12	6 0.17 7	1.4 0.02 1	0.1 0.1	0 0.02	-- 147 132	92 92 92		

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent				Mineral constituents in parts per million						
				Calcium Mg	Magne- sium Na	Sodium K	Potas- sium CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fine F	Beren- B	Sul- fate S ₂ O ₃	I.O.S. Expos- ed 105°C	Total Hardness CaCO ₃		
Date sampled				Co	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	S ₂ O ₃	Computed	Collected	
ANTELOPE HYDRO SUBUNIT																		
ROCK CREEK HYDRO SUBAREA																		
W2600																		
W26A0																		
W26A8																		
4N/10W-14E 1 S 10-21-63	65	8.0	550	42 2.10 38	18 1.48 26	45 1.96 35	2 0.05 1	0	232 3.80 70	58 1.21 22	14 0.39 7	2.2 0.04 1	1.6	0.17	14	324 311	174	
5N/ 9W-25A 1 S 5-14-64	--	8.4	416	27 1.35 32	12 0.99 23	42 1.83 43	4 0.10 2	6 0.20 5	157 2.57 60	57 1.19 78	11 0.31 7	1.0 0.02	0.4	0	--	266 238	117	
5N/11W- 9A 2 S 3-27-64	--	7.6	296	35 1.75 54	6 0.49 15	22 0.96 30	2 0.05 2	0 2.52 77	154 3.85 60	26 0.54 16	7 0.20 6	1.5 0.02 1	0.3	0.02	27	190 203	112	
6N/ 8W-23M 1 S 3-25-64	--	7.5	500	40 2.00 36	10 0.82 15	60 2.61 47	5 0.13 2	0 1.69 31	103 3.85 65	185 3.85 65	0	0.0	0.4	0.07	15	374 366	141	
6N/ 8W-30G 1 S 4- 6-64	--	7.9	415	28 1.40 33	7 0.58 14	49 2.13 51	3 0.08 2	0 2.07 49	126 3.85 44	89 1.85 44	9 0.25 6	3.2 0.05 1	0.3	0	--	263 250	99	
6N/ 8W-35F 2 S 3-24-64	--	7.9	425	30 1.50 33	7 0.58 13	56 2.43 53	4 0.10 2	0 1.74 38	106 3.85 58	130 2.71 59	5 0.14 3	2.2 0.04 1	0.2	0.09	16	266 303	104	
6N/ 9W-13A 1 S 5-14-64	--	7.9	564	44 2.20 37	17 0.99 17	60 2.61 44	3 0.08 1	0 2.07 36	126 3.85 58	158 3.29 58	11 0.31 5	2.5 0.04 1	0.5	0	--	365 353	160	
6N/ 9W-28K 1 S 2-12-64	79	7.5	503	25 1.25 25	4 0.33 7	76 3.30 67	1 0.03 1	0 1.88 30	115 3.85 50	116 2.42 50	19 0.54 11	0.0 0.0	1.5	0.18	--	324 299	79	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million percent reactance value				Mineral constituents in parts per million				
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	TDS Evap. Residue Excl. SiO ₂ Calcd.
ANTELOPE HYDRO SUBUNIT ROCK CREEK HYDRO SUBAREA																
				W26AU	ANTELOPE HYDRO UNIT										W2600	
				W26A8												
6N/ 9W-29E 1 S 2-12-64	7U	7.3	387	41 2.05 50	15 1.23 30	17 0.74 18	3 0.08 2	0	176 2.88 71	44 0.92 23	0.0	0.4	0.05	--	245 215	164
6N/ 9W-30A 1 S 5-14-64	--	8.3	425	42 2.10 48	12 0.99 23	28 1.22 28	3 0.08 2	0	171 2.80 64	66 1.37 31	0.0	0.4	0.10	--	262 244	155

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million										Mineral constituents in parts per million			
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fluo- ride F	Ber- ber B	Sol- co SO ₂	Total Equiv- alent of CaCO ₃ Computed	Total Hardness of CaCO ₃ Computed
UPPER MOJAVE HYDRO SUBUNIT W2880																	
2N/ 2W-32R 2 S 12-31-63	--	7.4	405	50 2.50 56	15 1.23 28	0.65 15	3 0.08 2	0	232 3.80 83	2 0.04 1	19 0.54 12	11.0 0.18 4	0.2	--	257 229	187	
7-14-64	--	7.5	183	14 0.70 36	0.16 8	24 54	1 0.03 2	0	92 1.51 83	0 0.28 15	10 0.28 15	1.0 0.02 1	1.5	--	94 99	43	
2N/ 3W-19F 1 S 7-30-64	62	6.9	153	17 0.85 53	4 0.33 21	9 0.39 24	1 0.03 2	0	94 1.54 92	0 0.14 8	5 0.14 8	0.0 0.0 0	0.1	35	110 117	59	
2N/ 3W-19H 1 S 8-12-64	--	7.5	107	8 0.40 35	4 0.33 29	9 0.39 34	1 0.03 3	0	59 0.77 85	3 0.06 5	4 0.11 10	0.0 0.0 0	0.1	--	80 58	37	
2N/ 3W-19L 1 S 12-26-63	--	6.5	112	10 0.50 39	4 0.33 26	10 0.43 33	1 0.03 2	0	59 0.97 82	0 0.20 17	7 0.20 17	0.4 0.01 1	0.1	--	92 62	42	
2N/ 3W-19L 2 S 12-26-63	--	7.2	171	19 0.95 52	5 0.41 23	10 0.43 24	1 0.03 2	0	105 1.72 91	0 0.17 9	6 0.17 9	0.5 0.01 1	0.2	--	138 93	68	
2N/ 3W-19R 1 S 7-30-64	52	7.6	199	26 1.30 63	4 0.33 16	9 0.39 19	1 0.03 1	0	108 1.77 85	0 0.31 15	11 0.31 15	0.0 0.0 0	0.1	27	130 131	82	
2N/ 3W-20N 1 S 7-30-64	56	6.9	123	8 0.40 33	5 0.41 33	9 0.39 32	1 0.03 2	0	56 0.92 74	0 0.22 25	11 0.31 25	1.0 0.02 2	0.1	30	90 93	41	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million							Mineral constituents in parts per million												
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total Dissolved Solids as CaCO ₃							
				UPPER MOJAVE HYDRO SUBUNIT										W28B0									
				MOJAVE HYDRO UNIT										W2800									
2N/ 3W-26D 2 S 12-31-63	--	7.5	185	22	6	10	2	0	115	3	6	1.5	0	1.5	0	--	124	80					
				1.10	0.49	0.43	0.05	2	1.88	0.06	0.17	0.02		0.02		--	107						
				53	24	21	2		88	3	8	1		1			107						
7-14-64	--	7.3	297	34	11	10	1	0	110	35	13	12.0	0	0.06	0	--	215	130					
				1.70	0.90	0.43	0.03		1.80	0.73	0.37	0.19		0.19			170						
				56	29	14	1		58	24	12	6		6			170						
2N/ 3W-26E 1 S 12-31-63	--	7.7	169	20	6	10	2	0	100	4	5	1.6	0	0	0	--	127	75					
				1.00	0.49	0.43	0.05		1.64	0.08	0.14	0.03		0.03			98						
				51	25	22	3		87	4	7	2		2			98						
7-14-64	--	8.1	180	23	4	8	2	2	101	3	4	2.0	0	0	0	--	114	74					
				1.15	0.33	0.35	0.05		1.66	0.06	0.11	0.03		0.03			98						
				61	18	19	3	4	86	3	6	2		2			98						
2N/ 3W-27D 1 S 12-31-63	--	7.6	204	22	7	13	2	0	115	4	8	4.7	0	0.01	0	--	130	84					
				1.10	0.58	0.57	0.05		1.88	0.08	0.23	0.08		0.08			117						
				48	25	25	2		83	4	10	4		4			117						
7-14-64	--	7.3	279	36	7	13	3	0	149	7	11	6.5	0	0.09	0	--	137	119					
				1.80	0.58	0.57	0.08		2.44	0.15	0.31	0.10		0.10			157						
				59	19	19	3		81	5	10	3		3			157						
2N/ 4W-18L 1 S 6-12-64	50	7.0	170	14	4	11	3	0	66	13	7	0.0	0	0	0	--	108	52					
				0.70	0.33	0.48	0.08		1.08	0.27	0.20	0.0		0.0			85						
				44	21	30	5		70	17	13						85						
2N/ 4W-25H 1 S 7-16-64	51	6.9	80	8	1	7	1	0	43	0	3	1.0	0	0.1	0	35	80	24					
				0.40	0.08	0.30	0.03		0.70	0.08	0.08	0.02		0.02			77						
				49	10	37	4		88	10	3	3		3			77						

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million equivalents per million reactance value							Mineral constituents in parts per million							
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fos- phate P	Bor- on B	Sil- ica SiO ₂	I.D.S. Exp. 100°C	Hardness 55	Total Dissolved Solids TDS
UPPER MOJAVE HYDRO SUBUNIT																		
WZ860																		
MOJAVE HYDRO UNIT																		
WZ800																		
2N/ 5W- 3L 1 S 7-29-64	64	7.2	460	3.34 63	1.32 25	0.57 11	0.10 2	4	0	4.02 77	1.06 20	5	1.0 0.02	0.1	0	20	290 298	233
3N/ 4W-32H 1 S 5-27-64	--	7.4	336	1.75 47	0.82 22	1.13 30	0.03 1	0	0	2.56 67	0.52 14	25 19	1.0 0.02	0.4	0.04	--	224 201	129
4N/ 3W- 1M 1 S 5-27-64	--	7.8	1453	5.44 38	2.30 16	6.26 44	0.15 1	6	0	1.88 13	4.43 31	289 56	3.5 0.06	0.8	0.70	--	1010 851	387
4N/ 3W- 6D 2 S 5-27-64	--	6.8	291	1.65 55	0.58 19	0.74 25	0.03 1	0	0	1.97 64	0.23 7	11 13	32.0 0.52	0.3	0.04	--	198 173	112
4N/ 3W- 9N 2 S 2- 4-64	--	7.7	139	0.60 39	0.49 32	0.43 28	0.03 2	1	0	1.28 83	0.08 5	4 5	2.3 0.04	0.4	0.01	--	106 79	55
9-10-64	--	7.7	143	0.55 37	0.49 33	0.43 29	0.03 2	2	0	1.21 83	0.10 7	5 8	2.5 0.04	0.8	0	--	116 77	52
4N/ 3W-2UL 1 S 2- 4-64	--	7.7	276	1.65 56	0.66 22	0.61 21	0.05 2	2	0	2.36 78	0.27 9	13 6	13.4 0.22	0.4	0.02	--	180 161	116
9-13-64	--	8.2	293	1.70 56	0.66 22	0.65 21	0.05 2	2	2	2.40 74	0.29 9	14 8	13.0 0.21	0.3	0	--	184 166	118

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Date sampled	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent reactance value				Mineral constituents in parts per million				
					Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Bicarbonate B	Silica SiO ₂	Iron Fe
UPPER MOJAVE HYDRO SUBUNIT W2880																	
MOJAVE HYDRO UNIT W2800																	
4N/ 3W-21E 1 S 7- 4-64		--	7.7	170	17 0.85 45	6 0.49 26	12 0.52 28	1 0.03 2	0	95 1.56 83	7 0.15 8	5 0.14 7	1.6 0.03 2	0.02	--	110 97	67
9-10-64		--	8.0	184	18 0.90 47	5 0.41 21	13 0.57 30	1 0.03 2	0	93 1.52 78	7 0.15 8	9 0.25 13	2.5 0.04 2	0	--	120 102	66
4N/ 5W-22H 1 S 4-27-64		--	7.5	640	40 2.00 30	7 0.58 9	84 3.65 56	13 0.33 5	0	341 5.59 83	17 0.35 5	25 0.71 11	3.4 0.05 1	0.37	20	384 377	129
4N/ 7W-35L 2 S 4-28-64		54	7.7	820	79 3.94 41	40 2.26 34	52 2.71 24	4 0.10 1	0	414 6.79 72	111 2.31 25	9 0.25 3	2.1 0.03 3	0.09	12	550 513	362
5N/ 3W-24N 1 S 9-13-64		--	7.5	1445	87 4.34 31	33 2.71 19	158 6.87 49	5 0.13 1	0	101 1.66 12	219 4.56 32	286 8.07 56	0.0	0.53	--	993 840	353
5N/ 3W-25F 1 S 2- 4-64		--	8.5	1354	81 4.04 31	24 1.97 15	159 6.91 53	5 0.13 1	5	88 1.44 11	209 4.35 33	260 7.33 55	4.6 0.07 1	0.56	--	829 793	301
9-10-64		--	7.6	1312	81 4.04 30	25 2.06 15	168 7.37 54	4 0.10 1	0	95 1.56 12	211 4.39 33	253 7.13 54	6.8 0.11 1	0.55	--	846 797	305
5N/ 3W-27E 1 S 2- 4-64		--	8.0	490	37 1.85 38	12 0.99 20	46 2.00 41	2 0.05 1	0	112 1.84 37	89 1.85 37	40 1.13 23	8.4 0.14 3	0.30	--	315 291	142

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				parts per million reactivity value				Mineral constituents in parts per million			
				Calcium Co	Magne- sium Mg	Sodium Na	Potass- ium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Flu- ride F	Borax B	Sili- ca SiO ₂	Total Dissol- ved Solids TDS	Total Dissol- ved Solids TDS	Total Dissol- ved Solids TDS	
5N/ 3W-27E 1 S 9-10-64	--	7.7	927	68 3.39 36	21 1.73 19	95 4.13 44	3 0.08	0	110 1.80 19	185 3.85 42	126 3.55 38	4.5 0.07 1	0.7	0.69	--	607 558	256		
5N/ 4W- 80 1 S 1-30-64	--	8.2	181	2 0.10 5	4 0.33 16	37 1.61 78	1 0.03 1	12 0.40 20	81 1.33 67	0.04 0.04 2	7 0.20 10	2 0.03 2	0.3	0.01	--	114 107	22		
9-10-64	--	8.4	195	7 0.35 17	5 0.41 19	30 1.30 62	2 0.05 2	2 0.07 4	101 1.66 84	2 0.04 2	6 0.17 9	2 0.04 2	0.2	0	--	122 106	36		
5N/ 4W- 90 2 S 1-30-64	--	9.1	201	1 0.05 2	3 0.25 11	45 1.96 86	1 0.03 1	26 0.87 41	61 1.00 47	5 0.10 5	5 0.14 7	5 0.02 1	0.5	0.03	--	125 118	15		
9-10-64	--	8.7	190	4 0.20 10	2 0.16 8	36 1.57 80	1 0.03 2	2 0.07 4	101 1.66 83	3 0.06 3	6 0.17 9	3 0.04 2	0.3	0.01	--	122 106	18		
5N/ 4W- 9J 1 S 1-30-64	--	8.8	190	2 0.10 5	7 0.16 8	42 1.83 86	1 0.03 1	14 0.47 22	81 1.33 62	7 0.15 7	6 0.17 8	6 0.02 1	0.3	0.01	--	114 115	13		
9-19-64	--	8.5	193	4 0.20 10	7 0.16 8	38 1.65 81	1 0.03 1	0	101 1.66 83	8 0.17 9	5 0.14 7	5 0.02 1	0.3	0	--	103 109	14		
5N/ 4W- 9P 1 S 1-30-64	--	8.5	184	7 0.35 16	3 0.25 11	36 1.57 71	1 0.03 1	10 0.33 15	83 1.36 68	5 0.10 5	7 0.20 10	7 0.02 1	0.2	0.01	--	108 111			

W2880

MOJAVE HYDRO UNIT

W2800

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million				Mineral constituents in parts per million					
				Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	TDS Exp. 105°C Comp. 105°C	Total hardness Ca + Mg Pp. 1-3
UPPER MOJAVE HYDRO SUBUNIT																	
W2880																	
MOJAVE HYDRO UNIT																	
W2800																	
5N/ 4W-9P 1 S 9-19-64	--	8.5	193	7 0.35 17	5 0.41 19	30 1.30 62	2 0.05 2	0	104 1.70 85	6 0.12 6	6 0.17 8	1.2 0.02 1	0.3	0.04	--	105 109	3.2
5N/ 4W-10N 2 S 1-30-64	--	9.0	204	2 0.10 4	2 0.16 7	45 1.96 87	1 0.03 1	19 0.63 28	78 1.28 57	5 0.10 4	7 0.20 9	1.6 0.03 1	0.6	0.05	--	125 127	1.3
9-10-64	--	8.8	203	4 0.20 9	2 0.16 7	41 1.78 82	1 0.03 1	14 0.47 22	79 1.29 62	8 0.17 8	5 0.14 7	1.4 0.02 1	0.5	0.01	--	143 116	1.8
5N/ 4W-11P 2 S 9-13-64	--	7.9	400	20 1.00 27	4 0.33 9	55 2.39 63	2 0.05 1	0	90 1.48 40	41 0.85 23	49 1.38 37	2.0 0.03 1	0.8	0.42	--	216 218	6.7
5N/ 4W-16M 1 S 1-30-64	--	8.6	189	5 0.25 11	4 0.33 15	37 1.61 73	1 0.03 1	12 0.40 19	88 1.44 68	3 0.06 3	7 0.20 9	1.6 0.03 1	0.4	0.02	--	115 114	2.9
9-19-64	--	8.2	202	4 0.20 10	2 0.16 8	38 1.65 81	1 0.03 1	0	101 1.66 81	2 0.04 2	8 0.23 11	6.6 0.11 5	0.3	0.01	--	130 112	1.8
5N/ 4W-19J 1 S 9-10-64	--	8.4	207	2 0.10 5	1 0.08 4	43 1.87 90	1 0.03 1	0	98 1.61 78	3 0.06 3	9 0.25 12	9.5 0.15 7	0.5	0	--	120 117	3
5N/ 4W-20B 1 S 1-30-64	--	8.7	190	6 0.30 14	3 0.25 12	36 1.57 73	1 0.03 1	12 0.40 19	85 1.39 67	3 0.06 3	7 0.20 10	1.9 0.03 1	0.3	0.02	--	121 112	2.4

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				Mineral constituents in parts per million				Mineral constituents in parts per million				
				Calcium Mg	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Capillary Hardness as CaCO ₃
5N/ 4W-20B 1 S 9-10-64	--	8.5	197	6 0.30 14	4 0.33 16	33 1.43 68	2 0.05 2	2 0.07 3	104 1.70 79	3 0.06 3	6 0.17 8	3 0.14 7	0	--	117 116	32
5N/ 4W-35H 3 S 1-24-64	--	7.8	253	1.10 4.2	0.41 15	25 1.09 41	2 0.05 2	--	121 1.98 76	12 0.25 10	10 0.28 11	5.6 0.09 3	0	25	124 166	74
5N/ 4W-35J 1 S 6-23-64	--	7.7	285	30 1.50 57	2 0.16 6	22 0.96 36	1 0.03 1	0	124 2.03 75	20 0.42 15	7 0.20 7	4.0 0.06 2	0.2	--	148 147	84
5N/ 4W-35J99 S 1-24-64	--	7.8	180	21 1.5 57	4 0.23 16	16 0.70 33	1 0.03 1	0	107 1.75 83	6 0.12 6	5 0.14 7	6.2 0.10 5	0	24	127 136	69
5N/ 4W-35R 1 S 6-23-64	--	7.4	157	17 0.85 53	3 0.25 16	11 0.48 30	1 0.03 2	0	82 1.34 88	3 0.06 4	4 0.11 7	1.1 0.02 1	0.3	26	120 107	55
5N/ 5W-22E 2 S 1-29-64	--	8.1	437	31 1.55 35	6 0.49 11	54 2.35 53	3 0.08 2	0	71 1.16 27	145 3.02 69	5 0.14 3	1.6 0.03 1	0.6	--	281 281	100
9- R-64	--	8.1	448	26 1.30 29	0 0.74 17	53 2.30 52	3 0.08 2	0	70 1.15 27	146 3.04 70	4 0.11 3	2.0 0.03 1	0.2	--	282 278	100
6N/ 3W- 9D 1 S 1-30-64	--	8.7	763	4 1.2 3	2 0.16 2	163 7.09 94	3 0.08 1	14 0.47 7	56 0.92 14	206 4.29 65	32 0.20 14	0.3 15.6	1.06	--	481 468	100

W2800

MOJAVE HYDRO UNIT

W28P0

UPPER MOJAVE HYDRO SUBUNIT

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				Mineral constituents in parts per million				Mineral constituents in parts per million					
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fluo- ride F	Boron B	Sili- co SiO ₂	Total Exp. (thor- radium) Erad. (DSEC Compd) C-14, C-13, C-12, C-11, C-10, C-9, C-8, C-7, C-6, C-5, C-4, C-3, C-2, C-1	
UPPER MOJAVE HYDRO SUBUNIT																	
W2886																	
MOJAVE HYDRO UNIT																	
W2800																	
6N/ 3W- 9D 1 S 9-13-64	--	8.6	791	6 0.30 4	0	161 7.00 95	0.08	3	0.17	5	83 1.36 20	209 4.35 65	30 0.85 13	0.6 0.01	1.18	501 473	1.4
6N/ 3W- 9E 1 S 1-30-64	--	8.1	1422	29 1.45 10	7 0.58 4	302 13.13 86	0.10	4	0	0	369 6.05 41	199 4.14 28	128 3.61 25	49.0 0.79 5	1.55	923 911	10.2
9-13-64	--	8.2	1855	37 1.85 10	8 0.66 4	260 15.65 86	0.10	4	0.07	2	194 3.18 17	438 9.12 50	166 4.68 26	70.0 1.13 6	1.60	1203 1194	12.6
6N/ 3W-28R 1 S 9-10-64	--	7.7	878	77 3.84 43	21 1.73 19	77 3.35 37	0.05	2	0	0	128 2.10 24	147 3.06 35	91 2.57 29	66.0 1.06 12	0.24	586 545	27.9
6N/ 4W- 6D 1 S 1-30-64	--	7.5	808	3.99 0.45	18 1.48 17	74 3.22 37	0.08	3	0	0	254 4.16 47	135 2.81 32	68 1.92 22	1.0 0.02	0.14	524 505	27.4
6N/ 5W- 8F 1 S 1-29-64	--	8.3	441	6 0.30 6	3 0.25 5	93 4.04 87	0.03	1	0.40	12	105 1.72 38	108 2.25 50	4 0.11 2	1.8 0.03 1	0.09	295 281	28
9- 8-64	--	8.4	460	5 0.25 5	4 0.33 7	91 3.96 87	0.03	1	0	0	124 2.03 45	111 2.31 51	4 0.11 2	2.3 0.04 1	0.12	270 280	29
6N/ 5W- 9B 1 S 1-10-64	68	7.9	550	8 0.40 7	2 0.16 3	115 5.00 89	0.03	1	0	0	173 2.84 52	113 2.35 43	7 0.20 4	1.3 0.02	0.27	342 349	28

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				parts per million				Mineral constituents in			
				Calcium Co	Magne- sium Mg	Sodium No	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	No- trate NO ₃	Flu- oride F	Bor- on B	Si- lica SiO ₂	Total Hardness (ppm CaCO ₃)	Fe	Cu	Zn
6N/ 5W-29J 2 S 1-29-64	--	7.7	460	39 1.95 38	8 0.66 13	56 2.43 48	2 0.05	2 0	0 0	220 3.61 71	32 0.67 13	28 0.79 16	1.5 0.02	0.6 0.6	0.05	--	269 275	131 140	
9- 8-64	--	7.3	482	38 1.90 38	11 0.90 18	49 2.13 43	2 0.05 1	2 0	0 0	199 3.26 68	33 0.69 14	30 0.85 18	0.7 0.01	0.6 0.6	0.09	--	275 262	140	
7N/ 4W- 7C 1 S 2- 4-64	--	7.4	665	76 3.79 49	14 1.15 15	62 2.74 35	2 0.05 1	2 0	0 0	303 4.97 65	73 1.52 20	39 1.10 14	0.1	0.8	0.09	--	418 417	267	
7N/ 4W-31N 1 S 2- 4-64	--	7.4	533	18 0.90 16	4 0.33 6	100 4.35 77	2 0.05 1	2 0	0 0	232 3.80 66	56 1.17 20	28 0.79 14	0.2	1.2	0.28	--	367 324	62	
9-13-64	--	8.2	565	19 0.95 17	2 0.16 3	105 4.57 80	2 0.05 1	2 0	7 0.23 4	194 3.18 56	65 1.35 24	33 0.93 16	0.5 0.01	1.4	0.64	--	349 331	56	
7N/ 5W- 7N 1 S 4-20-64	64	8.1	1620	58 2.89 16	73 1.89 11	250 12.61 72	6 0.15 1	6 0	0 0	187 3.06 18	458 9.54 56	160 4.61 26	2.0 0.03	1.0	0.94	18	1112 1109	230	

W2800

MOJAVE HYDRO UNIT

W28B0

UPPER MOJAVE HYDRO SUBUNIT

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million reactance value										Mineral constituents in parts per million			
				Calcium C.O.	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fer- rite Fe	Cu- rite Cu	Zn- rite Zn	I.D.S. Equiv. (val. of Ca) (ppm)	Hardness (ppm)
MIDDLE MOJAVE HYDRO SUBUNIT														W29CC			
MOJAVE HYDRO UNIT														W2800			
7N/ 1W- 9F 1 S 4-27-64	--	8.0	400	32 1.61 38	7 0.58 14	45 1.96 47	2 0.05 1	0	139 2.28 57	41 0.85 21	27 0.76 19	7.9 0.12 3	1.2	0.20	24	252	105
8N/ 4W-12P 1 S 2-28-64	--	7.3	1006	108 5.39 49	23 1.89 17	83 3.61 33	3 0.08 1	0	378 6.20 55	109 2.31 20	82 2.31 21	27.0 0.44 4	0.6	0.10	--	662	364
8N/ 4W-20A 1 S 2-28-64	--	7.9	1709	95 4.74 27	14 1.15 6	272 11.83 66	3 0.08	0	283 4.64 26	301 6.27 35	240 6.77 38	10.0 0.16 1	1.0	0.70	--	1109	295
8N/ 4W-21C 1 S 2-28-64	--	7.5	1704	217 10.83 53	41 3.87 17	141 6.13 30	3 0.08	0	109 1.79 9	722 15.02 74	121 3.41 17	1.3 0.02	0.9	0.21	--	1369	711
8N/ 4W-30A 2 S 1-21-64	64	7.5	3000	345 17.22 48	55 4.62 13	317 13.78 39	5 0.13	0	358 5.87 16	622 12.95 36	603 17.00 47	5.5 0.09	0.2	0.77	21	2252	1088
9N/ 4W-30E 1 S 1-22-64	74	7.6	1460	84 4.19 28	6 0.49 3	240 10.44 69	4 0.10	0	172 2.82 18	233 4.85 32	269 7.59 50	0.5 0.01	0.4	0.52	24	924	284
9N/ 2W- 1C 1 S 3-24-64	--	7.8	790	73 3.64 41	21 1.73 19	80 3.48 39	4 0.10	0	264 4.33 49	165 3.44 39	35 0.99 11	3.0 0.25 1	0.4	0.18	24	582	267
9N/ 2W- 1F 1 S 3-24-64	--	8.0	570	47 2.35 37	13 1.07 17	67 2.91 46	2 0.05	0	202 3.31 54	86 1.94 27	57 1.04 17	1.7 0.03	0.4	0.18	19	372	171

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in							parts per million equivalents per percent				parts per million reactivity value				Mineral constituents in parts per million																													
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Sulfate	Bicarbonate	Chloride	Sulfate	Bicarbonate	Chloride	Sulfate	Bicarbonate	Chloride	Evap. 105°C	Evap. 105°C Computed	Hardness 105°C																									
Date sampled				Ca	Mg	Na + K	CO ₃	HCO ₃	SO ₄	Cl	Na + K	CO ₃	HCO ₃	SO ₄	Cl	Na + K	CO ₃	HCO ₃	SO ₄	Cl	Na + K	CO ₃	HCO ₃	SO ₄	Cl	Na + K	CO ₃	HCO ₃	SO ₄	Cl	Na + K	CO ₃	HCO ₃	SO ₄	Cl	Na + K	CO ₃	HCO ₃	SO ₄	Cl								
MIDDLE MOJAVE HYDRO SUBUNIT																																																
W28C0																																																
MOJAVE HYDRO UNIT																																																
W2800																																																
9N/2W-1F 2	--	8.1	587	53	0.82	60	2	0	201	85	41	3.0	3.29	1.77	1.16	0.05	0.05	0.05	0.7	0.17	--	--	382	172																								
3-3-64				43	13	43	1		52	28	19																																					
9N/2W-1F 4	63	8.2	565	54	3	60	2	0	195	83	41	2.2	3.20	1.73	1.16	0.04	0.04	0.04	0.6	0.21	2.1		366	160																								
3-24-64				46	11	43	1		52	28	19																																					
9N/2W-6B 1	--	7.5	323	27	8	32	2	0	132	30	19	3.5	2.16	0.62	0.54	0.06	0.06	0.06	0.7	0.05	--		209	101																								
2-17-64				39	19	40	1		64	18	16																																					
9N/2W-17E 1	--	8.1	697	30	7	115	3	0	212	113	46	3.1	3.47	2.35	1.30	0.05	0.05	0.05	3.5	0.87	--		480	104																								
2-28-64				21	8	70	1		48	33	18																																					
9N/3W-1J 1	--	7.7	367	27	7	42	2	0	164	30	21	2.5	2.69	0.62	0.59	0.04	0.04	0.04	0.8	0.05	--		248	77																								
2-17-64				35	15	48	1		68	16	15																																					
9N/3W-3A 2	--	7.7	777	48	8	64	2	0	217	61	47	1.8	3.56	1.27	1.33	0.03	0.03	0.03	0.9	0.14	--		361	153																								
2-17-64				41	11	47	1		58	21	21																																					
9N/3W-15R 1	--	7.1	656	40	11	82	2	0	249	24	62	0.2	4.08	0.60	2.31	0.01	0.01	0.01	0.7	0.17	--		339	142																								
2-17-64				31	14	55	1		59	7	33																																					
9N/3W-24J 1	--	8.0	589	36	7	88	3	0	220	75	40	0.8	3.61	1.56	1.13	0.01	0.01	0.01	1.3	0.33	--		392	114																								
2-28-64				27	9	62	1		57	25	18																																					

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million										Mineral constituents in parts per million				
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Barium	Silica	Calcium	Barium	Silica
Date sampled				Ca	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂	CaCO ₃ Equiv	Total dissolved solids	
9N/ 3W-26H 1 S 2-28-64	--	8.1	678	18 3,90 13	7 9,58 8	123 5,35 77	3 0.08 1	0	181 2,97 43	130 2,71 39	42 1,18 17	7.0 0.11 2	2.2	0.68	--	441	74	
9N/ 3W-28A 1 S 2-28-64	--	7.2	1030	92 4,59 43	18 1,48 14	102 4,43 42	3 0.06 1	0	215 3,52 32	116 4,04 37	113 3,19 29	6.0 0.10 1	0.7	0.24	--	677	504	
10N/ 2W-30Q 1 S 2-17-64	--	7.8	466	39 1,95 46	9 0,74 15	49 2,13 44	2 0.05 1	0	207 3,39 67	40 0,83 17	26 0,73 15	4.8 0.08 2	0.6	0.14	--	204	135	
10N/ 3W-14E 1 S 5-1-64	6.8	8.0	1700	18 0,90 5	5 0,41 2	380 16,52 91	10 0.26 1	0	347 5,69 32	289 6,02 34	218 6,15 34	1.7 0.03 2	1.6	2.30	16	1244	66	
10N/ 3W-23H 4 S 1-8-64	6.8	8.2	570	13 0,65 11	1 0,08 1	120 5,22 87	1 0.03 1	0	274 4,49 76	34 0,71 12	25 0,71 12	1.4 0.02 2	1.6	1.62	25	346	37	
10N/ 3W-26F 1 S 10-18-63	--	7.5	2725	352 17,36 58	68 5,59 18	163 7,09 23	5 0.15 1	0	261 4,28 14	549 11,43 39	480 13,54 46	21.6 0.35 1	0.6	0.91	--	2370	1158	
10N/ 3W-26F 2 S 10-18-63	--	7.5	2105	253 12,62 56	52 4,29 19	126 5,48 24	5 0.13 1	0	247 4,05 19	331 6,89 32	380 10,72 49	10.6 0.17 1	0.6	0.49	--	1736	844	
10N/ 3W-27D 1 S 2-17-64	--	7.9	838	62 3,09 36	14 1,15 14	97 4,22 50	2 0.05 1	0	183 3,00 34	156 3,25 37	85 2,40 28	3.3 0.05 1	0.7	0.29	--	552	217	

W2800

MOJAVE HYDRO UNIT

W2806

MIDDLE MOJAVE HYDRO SUBUNIT

TABLE E-1
 MINERAL ANALYSES OF GROUND WATER 1963/64
 LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos of 25°C)	Mineral constituents in parts per million				parts per million equivalents per million percent reactance value				Mineral constituents in parts per million				
				Calcium Mg	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Ferric Fe	Barium Ba	Silica SiO ₂	Total Dissolved Solids TDS
10N/ 3W-36J 2 S 2-17-64	--	7.6	494	47	10	41	2	0	146	60	50	0.7	0.15	316	159	
				2.35 47	0.82 16	1.78 36	0.05 1	2.39 47	1.25 24	1.41 28	3.5 0.06 1	--	--	286		
MIDDLE MOJAVE HYDRO SUBUNIT				W28C0	MOJAVE HYDRO UNIT											W2800

TABLE E-1
 MINERAL ANALYSES OF GROUND WATER 1963/64
 LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million				Mineral constituents in parts per million							
				Calcium Co	Magnesium Mg	Sodium No	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂
HARPER HYDRO SUBUNIT				MOJAVE HYDRO UNIT				W2800							
HARPER HYDRO SUBAREA				W28D0				W28D2							
11N/ 4W-28N 1 S	--	8.0	1497	51	9	273	5	0	151	220	268	6.0	1.06	956	164
1-23-64				2.54	0.74	11.87	0.13		2.47	4.58	7.56	0.10			
				17	5	78	1		17	31	51			908	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million							Mineral constituents in parts per million						
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fuo- ride F	Borax B	SiO ₂	Total Dissolved Solids Computed CaCO ₃	
MOJAVE HYDRO UNIT														W2800			
LOWER MOJAVE HYDRO SUBUNIT														W28E0			
9N/ 1E- 1L 1 S 3- 4-64	--	8.2	375	33 1.65 41	6 0.49 17	43 1.87 46	2 0.05	7 0.23	175 2.87 68	26 0.54 13	19 0.54 13	1.3 0.02	0.7	0.11	--	252 224	107
9N/ 1E- 1M 1 S 3- 4-64	--	7.7	462	43 2.15 43	7 0.58	51 2.22 44	2 0.05	0 0	201 3.29 66	37 0.77 15	30 0.85 17	5.0 0.08 2	0.6	0.12	--	265 275	137
3-24-64	--	8.0	435	44 2.20 44	6 0.49 10	51 2.22 45	2 0.05	0 0	200 3.28 66	36 0.75 15	30 0.85 17	3.5 0.06 1	0.4	0.16	19	280 290	135
9N/ 1E- 13E 2 S 3- 3-64	--	7.6	1089	98 4.89 43	15 1.23 11	120 5.22 46	3 0.08	0 0	336 5.51 46	165 3.44 29	100 2.82 24	14.0 0.23 2	0.6	0.52	--	725 681	306
9N/ 1E- 15N 2 S 3- 3-64	--	7.6	108	95 4.74 41	18 1.48 13	120 5.22 45	3 0.08	0 0	336 5.51 46	166 3.46 29	101 2.85 24	14.0 0.23 2	0.6	0.54	--	722 683	311
3-23-64	--	8.2	990	91 4.49 39	19 1.56 14	123 5.35 47	3 0.08	0 0	324 5.31 46	162 3.37 29	99 2.79 24	8.3 0.13 1	0.2	0.58	24	686 688	303
9N/ 2E- 3K 1 S 3-24-64	64	7.9	420	36 1.80 37	8 0.66 13	56 2.43 49	1 0.03	0 0	199 3.26 69	41 0.85 18	21 0.59 13	0.0	0.4	0.20	19	286 280	123
9N/ 2E- 8N 2 S 3- 4-64	--	7.8	346	30 1.50 41	5 0.41 11	39 1.70 47	1 0.03	0 0	165 2.70 77	28 0.58 16	15 0.42 11	2.5 0.04 1	0.8	0.10	--	227 203	96

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LAHANTAN DRAINAGE PROVINCE (W)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million										Mineral constituents in parts per million					
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	Total Hardness at 105°C			
Date sampled				Co	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂	I.D.S. Evap. 180°C	Total Hardness at 105°C		
MOJAVE HYDRO UNIT																			
LOWER MOJAVE HYDRO SUBUNIT				W28FC														W2800	
9N/ 2F- 8N 2 S 3-23-64	--	7.7	350	32 1.60 41	5 0.41 10	44 1.91 48	1 0.03	1	0	170 2.79 71	34 0.71 18	14 0.39 10	1.7 0.03	0.4	0.16	17	252 233	101	
9N/ 2E-18E 1 S 3- 4-64	--	8.0	460	41 2.05 43	8 0.66 14	47 2.04 43	2 0.05	1	0	163 2.67 55	57 1.19 24	31 0.87 18	8.0 0.13	0.5	0.11	--	298 136	136	
3-23-64	65	7.9	450	45 2.25 42	9 0.74 14	54 2.35 44	2 0.05	2	0	182 2.98 56	62 1.29 24	32 0.90 17	8.1 0.13	0.4	0.16	19	318 321	150	
10N/ 2E-25P 1 S 6-24-64	--	8.5	475	23 1.15 22	10 0.82 16	73 3.17 61	1 0.03	1	10 0.33	178 2.92 57	46 0.96 19	32 0.90 18	0.0	0.2	0.29	--	296 283	99	
10N/ 2E-31R 1 S 3- 4-64	--	8.0	447	34 1.70 37	5 0.41 9	57 2.48 54	1 0.03	1	0	177 2.90 62	43 0.90 19	31 0.87 19	1.5 0.02	0.8	0.25	--	261 286	106	
3-24-64	--	8.0	420	31 1.55 32	5 0.41 9	64 2.78 58	1 0.03	1	0	182 2.98 64	43 0.90 19	28 0.79 17	0.8	0.4	0.30	22	285 286	98	
10N/ 2E-34C 1 S 5-19-64	--	7.9	653	32 1.60 24	5 0.41 6	104 4.52 69	2 0.05	1	0	182 2.98 44	106 2.21 33	56 1.58 23	0.3	0.8	0.98	--	413 396	101	
10N/ 3E-28P 4 S 6-24-64	--	7.7	610	34 1.70 26	12 0.99 15	86 3.74 58	1 0.03	1	0	246 4.03 63	49 1.02 16	46 1.30 20	0.0	0.4	0.26	--	360 350	135	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million reactivity value				Mineral constituents in parts per million					
				Calcium Mg	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Nit- rate NO ₃	Fer- ride F	Bor- on B	Sul- fa- te SO ₂	Total Hardness as CaCO ₃	
LOWER MOJAVE HYDRO SUBUNIT																	
W28E0																	
10N/ 3E-30M 1 S 6-24-64	--	8.4	520	15 0.75 14	3 0.25 5	96 4.17 5	3 0.08 2	5 0.17 3	180 2.95 55	41 0.85 16	48 1.35 25	0.0	0.4	1.41	--	342 301	50
10N/ 4E-19N 1 S 3-23-64	58	7.8	360	20 1.00 28	2 0.16 4	56 2.43 67	1 0.03 1	0 0 1	108 1.77 49	44 0.92 25	33 0.93 26	0.0	0.4	0.16	20	228 230	58
9N/ 1W-4G 1 S 3-24-64	--	8.1	650	65 3.24 43	12 0.99 13	73 3.17 42	3 0.08 1	0 0 1	245 4.02 55	97 2.02 28	43 1.21 17	1.3 0.02	0.4	0.16	18	422 433	212
9N/ 1W-9D 2 S 3-24-64	--	8.0	2000	127 6.34 26	37 3.04 13	335 14.57 60	6 0.15 1	0 0 1	289 4.74 20	544 11.33 48	270 7.61 32	7.3 0.12 1	1.2	3.20	18	1450 1491	469
9N/ 1W-9G 3 S 6-18-64	--	7.5	1036	86 4.29 37	21 1.73 15	126 5.48 47	2 0.05	0	381 6.24 55	125 2.60 23	90 2.54 22	1.2 0.02	0.7	0.82	29	687 669	301
9N/ 1W-10D 2 S 3-4-64	--	7.9	675	66 3.29 46	11 0.90 13	65 2.83 40	3 0.08 1	0	236 3.87 53	102 2.12 29	46 1.30 18	1.5 0.02	0.6	0.14	--	422 411	210
3-24-64	--	7.7	700	69 3.44 44	13 1.07 14	75 3.26 42	3 0.08 1	0	242 3.97 51	115 2.39 31	48 1.35 18	0.0	0.4	0.16	18	466 460	226
9N/ 1W-10E 1 S 6-18-64	--	7.5	846	75 3.74 40	18 1.48 16	95 4.13 44	2 0.05 1	0	343 5.62 60	89 1.85 20	63 1.78 19	4.0 0.06 1	0.8	0.90	26	559 542	261
MOJAVE HYDRO UNIT																	
W2800																	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million reactance value				Mineral constituents in parts per million					
				Calcium Co	Magne-sium Mg	Sodium Na	Potas-sium K	Carbon-ate CO ₃	Bicar-bonate HCO ₃	Sulfate SO ₄	Chlo-ride Cl	Ni-trate NO ₃	Flu-ride F	Boron B	Silica SiO ₂	Total Dissolved Solids (TDS) in mg/l	Total Hardness (CaCl ₂)
9N/ 1W-10G 1 S 3- 4-64	--	7.9	2046	210 10.48 37	10 0.82 3	384 16.70 60	2 0.05	0	9.41 33	622 12.95 46	199 5.61 20	27.0 0.44 2	0.9	1.26	--	1717 1738	565
9N/ 1W-13H 1 S 6-29-64	--	7.5	806	61 3.04	12 0.99	98 4.26	3 0.08	0	3.80 45	118 2.46 29	78 2.20 26	3.0 0.05 1	0.8	0.40	25	530 513	202
9N/ 1W-13H 2 S 3-23-64	64	7.5	650	58 2.89 36	10 0.82 10	97 4.22 53	2 0.05 1	0	2.21 3.62 46	110 2.29 29	71 2.00 25	1.3 0.02	0.4	0.42	20	460 479	186
10N/ 1W-32J 1 S 3- 4-64	--	7.9	759	70 3.49 44	11 0.90 11	80 3.48 44	3 0.08 1	0	2.58 4.23 51	124 2.58 31	49 1.38 17	1.8 0.03	0.6	0.16	--	468 466	220
10N/ 1W-33E 1 S 3-24-64	--	7.8	810	67 3.34 36	17 1.40 15	103 4.48 48	4 0.10 1	0	2.79 4.57 49	161 3.35 36	53 1.49 16	0.0	0.4	0.23	18	566 561	237

W2800

MOJAVE HYDRO UNIT

W28E0

LOWER MOJAVE HYDRO SUBUNIT

TABLE E-1
 MINERAL ANALYSES OF GROUND WATER 1963/64
 LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				parts per million reactivity value				Mineral constituents in parts per million			
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Baron B	Silica SiO ₂	I.D.S. Evap 180°C Computed	Total hardness as CaCO ₃		
AFTON HYDRO SUBUNIT CAVES HYDRO SUBAREA				W28G0															
W28G1				W2800															
10N/ 3E-14J 1 S 6-24-64	78	7.9	670	52 2.59 37	9 0.74 11	83 3.61 52	1 0.03	0	148 2.43 36	75 1.56 23	96 2.71 40	2.0 0.03	0.6	0.46	--	402	167		
11N/ 3E-35F 1 S 4-29-64	74	4.1	340	10 0.50 14	6 0.49 14	56 2.43 70	2 0.05 1	0	4 0.07 2	5 0.10 3	116 3.27 95	1.3 0.02 1	0.6	0.36	1	272	50		

TABLE E-1
 MINERAL ANALYSES OF GROUND WATER 1963/64
 LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactance value				Mineral constituents in parts per million								
				Calcium Co	Magne- sium Mg	Sodium No	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fuo- r de F	Boron B	Sil- ica SiO ₂	Total Dissolved Solids TDS Expressed in PPM Computed Gals. (3)
BAKER HYDRO SUBUNIT SODA LAKE HYDRO SUBAREA				W28H0				W2800								
14N/ 8E-36A 1 5 5- 4-64				182 9.08 14	143 11.76 18	1000 43.48 67	20 0.51 1	0	254 4.16 6	258 5.37 8	1933 54.51 85	21.0 0.34 1	2.0	1.72 42	3894 3728	1043

TABLE E-1
 MINERAL ANALYSES OF GROUND WATER 1963/64
 LAHONTAN DRAINAGE PROVINCE (W)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactance value										Mineral constituents in parts per million				
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total Evap 180°C Evap 105°C Computed CaCO ₃		
11N/12E-25G 1 S 5-7-64	--	8.1	840	45 2.25 26	22 1.81 21	103 4.48 52	3 0.08 1	0	183 3.00 35	144 3.00 35	84 2.37 28	14.0 0.23 3	0.2	0.16	18	498 523	203	
KELSO HYDRO SUBUNIT				W2810	MOJAVE HYDRO UNIT										W2800			

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in					parts per million equivalents per million reagent value				Mineral constituents in parts per million					
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fluo- ride F	Boron B	Sul- fur S	Iron Fe	Cu Cu	Zn Zn
3N/ 1F- 3F 1 S 6-19-64	--	7.7	411	44 2.20 45	71 1.73 36	20 0.87 18	2 0.05 1	0	0	236 3.87 82	32 0.67 14	5 0.14 3	3.0 0.05 1	0.7	0.05	--	312 244	197
4N/ 1E- 1R 2 S 5-28-64	--	8.1	1111	23 1.15 11	6 0.49 5	205 8.91 83	5 0.13 1	0	0	123 2.02 19	255 5.31 50	113 3.19 30	2.5 0.04	5.9	0.77	--	703 677	82
4N/ 1F- 30 1 S 4- 8-64	--	7.9	680	66 3.29 45	71 1.73 24	50 2.17 30	2 0.05 1	0	0	118 1.93 26	201 4.18 57	41 1.16 16	2.4 0.04 1	0.6	0.06	--	469 442	251
4N/ 1F- 6H 1 S 5-27-64	--	7.6	567	53 2.64 42	24 1.97 32	37 1.61 26	1 0.03	0	0	190 3.11 48	113 2.35 37	33 0.93 14	2.0 0.03	0.4	0.05	--	369 357	231
4N/ 1F- 9A 1 S 5-28-64	--	8.1	549	54 2.69 46	21 1.73 30	32 1.39 24	2 0.05 1	0	0	120 1.97 34	154 3.21 56	20 0.56 10	1.8 0.03 1	0.6	0.04	--	387 344	221
4N/ 1F- 1P 2 S 5-28-64	--	7.9	791	43 2.15 26	40 3.29 40	62 2.70 33	4 0.10 1	0	0	123 2.02 25	141 2.94 36	106 2.99 37	7.3 0.12 1	0.8	0.04	--	554 465	272
4N/ 1F- 32A 1 S 6-19-64	--	7.6	558	34 1.70 27	19 1.56 25	62 2.70 43	12 0.31 5	0	0	258 4.23 68	73 1.52 24	17 0.48 8	0.0 0.13	1.8	0.13	--	334 346	163
4N/ 2F- 17R 1 S 5-28-64	--	8.0	587	40 2.00 33	19 1.56 26	55 2.39 40	3 0.08 1	0	0	130 2.13 36	94 1.96 33	44 1.24 21	38.0 0.61 10	0.9	0.05	--	370 358	178

LUCERNE HYDRO UNIT X0100

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million						parts per million equivalents per million reagent value				Mineral constituents in parts per million				
				Calcium Mg	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Flu- oride F	Sulf- ide S ₂	Sulf- ate SO ₄	Iron Fe	Copper Cu	Zinc Zn
5N/ 1E-17C 2 S 5-28-64	--	7.8	4936	226 11.28 22	28 2.30 5	845 36.74 73	11 0.28 1	0	84 1.38 3	664 13.82 27	1260 45.23 70	0.0	3.9	3.75	--	3211 3083	6.0	
5N/ 1E-19P 1 S 5-28-64	--	7.0	5521	259 12.92 46	108 8.88 31	148 6.44 23	5 0.13 0	0	123 2.02 7	210 4.37 16	743 20.95 76	2.8 0.05	0.5	0.004	--	2117 1537	10.1	
5N/ 1E-23C 1 S 5-28-64	--	7.7	11060	336 16.77 14	55 4.52 4	2180 94.79 82	0	0	115 1.88 2	544 11.36 15	1400 45.88 83	1.6 0.02	7.7	6.00	--	7249 6878	10.65	
5N/ 1E-26A 1 S 6-28-64	--	7.8	3812	133 6.64 17	13 1.07 3	702 30.52 79	14 0.36 1	0	99 1.62 4	498 10.37 27	930 26.25 69	0.5 0.01	8.0	2.25	--	2413 2549	8.6	
5N/ 1E-29N 1 S 6-28-64	--	7.7	762	75 3.64 46	28 2.31 29	44 1.91 24	2 0.05 1	0	156 2.56 33	64 1.33 17	134 3.76 43	2.3 0.04	0.5	0.02	--	480 425	2.7	
5N/ 1E-31F 1 S 5-28-64	--	8.0	103	46 2.31 40	19 1.56 27	43 1.87 32	2 0.05 1	0	173 2.84 49	81 1.63 29	36 1.02 18	12.3 0.20	0.5	0.03	--	229 325	1.3	
5N/ 1E-32E 1 S 5-28-64	--	7.6	1027	92 4.45 4	37 3.14 27	85 3.70 33	2 0.05 0	0	2.6 3.70 33	242 5.04 45	85 2.40 21	3.3 0.15	0.5	0.20	--	707 661	3.77	
5N/ 1E-32R 1 S 5-28-64	--	8.0	579	52 2.50 41	21 1.73 29	44 1.91 30	2 0.05 1	0	135 2.21 36	147 3.06 50	27 0.76 13	2.5 0.24	0.5	0.15	--	328 362	2.16	

LUCERNE HYDRO UNIT X0100

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million						parts per million equivalents per million reactance value					Mineral constituents in parts per million			
				Calcium sum mg Co	Magne sum mg Na	Sodium Na	Potas sum K	Carbonate CO ₃	Bicar-bonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Bars. B	Sul-co S O ₂	U.S. Exp. Res. Com. 3	Total Hardness Com. 3	
4N/ 1W-9R 1 S 5-27-64	--	7.9	447	58	6	32	1	0	172	56	17	1.8	0.7	0.02	--	293	169	
				2.89	0.49	1.39	0.03	3.15	1.17	0.48	0.03	3.15	24	1	1	267	158	
4N/ 1W-11N 1 S 5-27-64	--	8.1	363	27	22	21	3	0	200	27	5	4.3	0.3	0	--	223	158	
				1.35	1.81	0.91	0.08	3.28	0.56	0.14	0.07	3.28	14	2	2	208	376	
4N/ 1W-11J 1 S 5-27-64	--	7.4	737	78	44	49	2	0	366	116	34	6.5	0.7	0.06	--	547	376	
				3.89	3.62	2.13	0.05	6.00	2.42	0.56	0.10	6.00	76	10	1	510	202	
4N/ 1W-14J 4 S 5-27-64	--	7.6	417	43	23	14	2	0	236	27	6	4.0	0.2	0	--	259	202	
				2.15	1.89	0.61	0.05	3.87	0.56	0.17	0.06	3.87	12	4	1	245		

X0100

LUCERNE HYDRU UNIT

TABLE E-1
 MINERAL ANALYSES OF GROUND WATER 1963/64
 COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per percent reactance value					Mineral constituents in parts per million				
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon dioxide CO ₂	Bicar- bonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Iron Fe	Stron- tium Sr	Copper Cu	Zinc Zn	Lead Pb
4N/ 2E-25J 1 3 5-20-64	--	7.7	745	69 3.44 41	26 2.14 76	61 7.65 32	6 0.15	0	0	146 7.39 30	232 4.83 60	30 0.85 11	0.6 0.01	0.8	0.11	--	513 497	279
4N/ 3E-23G 1 5 6-19-64	--	7.6	1234	10 4.99 35	63 5.18 37	88 3.83 27	6 0.15	0	0	130 2.13 15	418 8.70 62	112 3.16 22	4.8 0.08 1	0.6	0.11	--	899 856	507
4N/ 4E-14C 1 5 6-19-64	--	7.6	2740	205 10.23 31	140 11.51 35	247 10.74 33	8 0.20	0	0	144 2.36 7	771 16.05 50	484 13.65 42	15.0 0.24 1	1.0	0.30	--	2148 1942	1062
4N/ 4E-19M 1 5 6-19-64	--	7.6	1485	94 4.69 30	70 5.76 37	116 5.04 32	5 0.13 1	0	0	123 2.02 13	210 4.37 29	302 8.52 57	5.8 0.09 1	1.0	0.15	--	1014 864	523

X0200

JOHNSON HYDRO UNIT

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				Mineral constituents in parts per million				Mineral constituents in parts per million						
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Nitrate NO ₃	Fluoride F	Iron Fe	Barium Ba	Silica SiO ₂	Total dissolved solids TDS	No. of analyses completed	No. of analyses reported
BRISTOL HYDRO SUBUNIT																		
X1000																		
BRISTOL HYDRO UNIT																		
X1000																		
5N/12E-58 1-5 5-13-64	--	7.4	17000	1098 50.30 25	196 16.12 8	3009 130.44 66	55 1.41 1	0 0.52	32 0.52	1846 38.43 20	5532 156.00 80	0.0	0.0	2.2	10.30	16	11894 11683	324
5N/14E-19K 1-5 5-11-64	--	8.0	450	30 1.50 33	8 0.66 14	53 2.30 50	5 0.13 3	0 7.26 49	138 7.26 49	37 0.77 17	50 1.41 50	12.0 0.19 4	0.6	0.6	0.37	37	298 301	108
6N/11E-30F 1-5 5-11-64	--	6.6	7500	467 23.30 29	64 5.26 6	1200 52.18 64	18 0.46 1	0 0.30	18 0.30	316 6.58 8	2670 75.29 92	6.2 0.10	2.4	2.4	2.86	24	4922 4779	1429
6N/12E-31A 1-5 5-13-64	77	8.0	4525	23 1.15 3	15 1.23 3	920 40.09 93	16 0.41 1	0 1.36 3	83 1.36 3	90 1.87 4	1400 39.48 52	10.0 0.16	3.9	3.40	4	3555	112	
6N/12E-35F 1-5 5-12-64	88	7.5	4000	230 11.48 25	36 2.96 6	720 31.31 68	22 0.56 1	0 0.34 1	21 0.34	313 6.52 14	1383 39.00 85	0.0	0.0	3.0	3.90	19	2832 2740	723
6N/13E-360 1-5 5-11-64	84	7.5	1300	112 5.59 38	57 4.11 28	112 4.87 32	10 0.26 2	0 0.26	100 1.54 11	420 8.74 59	145 4.09 28	16.0 0.26	1.6	1.42	48	1046	485	
6N/14E-31A 1-5 5-13-64	--	8.1	500	29 1.45 27	6 0.49 9	74 3.22 61	6 0.15 3	0 0.56 56	156 2.56 56	42 0.87 17	53 1.49 29	11.0 0.18 4	2.0	0.60	36	332 336	77	
6N/14E-31J 1-5 5-13-64	--	7.8	450	26 1.30 27	5 0.41 9	67 2.91 61	5 0.13 3	0 0.13	134 2.29 46	39 0.81 17	55 1.55 38	12.0 0.19 4	2.0	0.47	32	320 305	86	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million percent reactance value				Mineral constituents in parts per million					
				Calcium C.O.	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fluo- ride F	Boro- n B	Sil- ico SiO ₂	I.D.S. Evap- orated as CO ₂ Computed	Total hardness as CaCO ₃
6N/14E-32E 1 S 5-12-64	--	8.1	430	22 1.10 24	7 0.58 13	270 60 60	0.13 3	0	145 2.38 55	34 0.71 16	35 0.99 22	15.0 0.24 6	0.33 27	2.0 2.0	0.33 27	288 283	84
6N/14E-32W 1 S 5-11-64	83	7.6	550	26 1.30 23	7 0.58 10	82 3.57 64	0.15 3	0	132 2.16 40	50 1.04 19	74 2.09 38	8.4 0.14 3	0.38 31	2.6 2.6	0.38 31	344 352	94
6N/14E-32W 2 S 5-11-64	--	8.1	500	19 0.95 19	5 0.41 8	83 3.61 71	5 0.13 3	0	144 2.36 48	44 0.92 19	50 1.41 29	12.0 0.19 4	0.40 33	3.0 3.0	0.40 33	318 325	63
6N/14E-32N 1 S 5-11-64	--	8.1	570	25 1.25 22	4 0.33 6	94 4.09 71	5 0.13 2	0	142 2.33 41	55 1.15 20	75 2.12 37	8.6 0.14 2	0.37 36	2.8 2.8	0.37 36	374 376	74
7N/11E-36D 1 S 5-12-64	73	7.8	690	30 1.50 21	7 0.58 8	110 4.78 68	5 0.13 2	0	205 3.36 49	82 1.71 25	56 1.58 23	16.0 0.26 4	0.86 31	1.4 1.4	0.86 31	446 440	104
8N/12E-20W 1 S 5-13-64	76	8.0	750	85 4.24 48	15 1.23 17	75 3.26 37	4 0.10 1	0	295 4.84 54	80 1.67 19	84 2.37 27	1.4 0.02	0.33 28	2.0 2.0	0.33 28	484 510	74
8N/12E-26L 1 S 5-12-64	75	8.0	750	81 4.04 50	13 1.07 13	68 2.96 36	3 0.08 1	0	237 3.88 49	76 1.58 20	86 2.43 31	1.6 0.03	0.19 28	2.6 2.6	0.19 28	482 476	76

BRISTOL HYDRO SUBUNIT X10A0

BRISTOL HYDRO UNIT

X1000

TABLE E-1
 MINERAL ANALYSES OF GROUND WATER 1963/64
 COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in						parts per million equivalents per million reagent value				Mineral constituents in parts per million				
				Calcium M g	Magne sium M g	Sodium No	Potas sium K	Carbon ate LU ₃	Bicar-bonate HCU ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NU ₃	Flu- oride F	Boron B	Sul- fa- te SO ₂	TDS Expressed as CaCO ₃	Total hardness as CaCO ₃	
FENNER HYDRO SUBUNIT																		
X1000																		
7N/15E-35R 1 S 5-13-64	81	8.2	600	26 1.30 21	16 1.32 21	80 3.48 55	7 0.18 3	0	159 2.61 43	68 1.42 23	68 1.42 23	10.0 0.16 3	0.8 0.49 32	377 386	131			
7N/16E-1A 1 S 5-13-64	--	7.9	410	39 1.95 46	4 0.33 6	43 1.87 44	5 0.13 3	0	121 1.98 46	24 0.50 12	24 0.50 12	5.3 0.09 2	0.2 0.11 29	292 269	114			
8N/16E-36R 1 S 5-13-64	--	7.7	380	39 1.95 49	3 0.25 6	37 1.61 41	5 0.13 3	0	137 2.25 59	23 0.48 13	35 0.99 26	6.3 0.10 3	0.2 0.19 33	228 249	110			
8N/17E-2D 1 S 5-13-64	--	8.1	750	28 1.40 17	9 0.74 9	134 5.83 71	8 0.20 2	0	167 2.74 34	152 3.16 40	66 1.86 23	12.0 0.19 2	1.2 0.54 31	522 524	107			
11N/16E-1P 1 S 5-7-64	68	7.4	195	20 1.00 51	2 0.16 8	16 0.70 36	4 0.10 5	0	61 1.00 51	16 0.33 17	20 0.56 29	4.2 0.07 4	0.2 0.19 42	160 154	58			
12N/16E-19C 1 S 5-7-64	58	8.4	420	36 1.80 39	9 0.74 16	47 2.04 44	3 0.08 2	8 0.27 6	183 3.00 66	25 0.52 12	25 0.71 16	1.2 0.02 16	0.8 0.16 40	250 285	127			

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million							Mineral constituents in parts per million						
				Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total Dissolved Solids (TDS) Computed	Total Dissolved Solids (TDS) by Gravimetry
11N/16E-1P 1 S 5-7-64	68	7.4	195	20 1.00 51	0.16 0.70 8	16 0.70 36	0.10 0.10 5	0	61 1.00 51	16 0.33 17	16 0.33 17	20 0.56 29	4.2 0.07 4	0.19	4.2 0.07 4	160 194	5P
11N/17E-5R 1 S 5-7-64	--	8.0	650	32 1.60 22	27 2.22 31	73 3.17 44	0.10 0.23 3	0	147 2.41 35	54 1.12 16	120 3.38 48	120 3.38 48	4.5 0.07 1	0.16	4.5 0.07 1	484 431	1P1
12N/16E-19C 1 S 5-7-64	68	8.4	420	36 1.80 39	9 0.70 16	47 2.34 44	3 0.28 2	8 0.71 6	183 3.00 66	25 0.52 12	25 0.71 16	25 0.71 16	1.2 0.07 2	0.16	1.2 0.07 2	250 285	12T
12N/17E-4D 1 S 5-7-64	--	8.1	400	36 1.80 40	12 0.99 22	36 1.57 35	4 0.10 2	0	190 3.11 73	15 0.31 7	25 0.71 17	25 0.71 17	2.5 0.15 4	0.16	2.5 0.15 4	268 269	14C
13N/17E-12B 1 S 5-7-64	--	8.1	380	30 1.50 39	12 0.99 25	31 1.35 35	2 0.05 1	0	165 2.70 72	25 0.52 14	17 0.48 13	17 0.48 13	3.7 0.06 2	0.10	3.7 0.06 2	236 235	12S

X1300

PIUTE HYDRO UNIT

X1300

LANE REPORT 5-2-64

TABLE E-1
 MINERAL ANALYSES OF GROUND WATER 1963/64
 COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in						parts per million					Mineral constituents in parts per million			
				Calcium Cc	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total Dissolved Solids (TDS)	Total Dissolved Solids (TDS) Computed	
Date sampled																		
14W/244-15	103	8.6	510	3	1	115	3	12	73	80	65	0.0	3.4	0.42	27	336	17	
5-13-64				0.15	0.08	5.00	0.08	0.40	1.20	1.67	1.85					346		
				3	2	94	2	8	24	33	36							

X1300

PIUTE HYDRO UNIT

X1300

PIUTE HYDRO SURUNIT

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million reductance value				Mineral constituents in parts per million					
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carben- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fluo- ride F	Boron B	Sili- co SiO ₂	TDS Total Dissol- ved Solids Compu- te	Total Hardness Calc
VIDAL HYDRO SUBUNIT X15A0																	
COLORADO HYDRO UNIT X1500																	
1S/23E-1A 1 S 5-13-64	--	8.0	960	11 0.55 6	2 0.16 2	210 9.13 92	0.08 0	3 1	0 0	78 1.28 13	182 3.79 39	165 4.65 48	0.0	3.4	1.14	6.0 64.2	36
1N/23W-9E 2 S 5-13-64	--	7.7	940	25 1.25 13	4 0.33 3	185 8.04 83	2 0.05 1	2 1	0 0	84 1.38 14	169 3.52 37	161 4.54 47	11.0 0.18 2	0.8	0.44	6.00 611	77

TABLE E-1
 MINERAL ANALYSES OF GROUND WATER 1963/64
 COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million							Mineral constituents in parts per million							
				Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Beryllium Be	Silica SiO ₂	Total hardness as CaCO ₃		
				PALO VERDE HYDRO SUBUNIT										X1500				
				COLORADO HYDRO UNIT										X1500				
65/22E-37K 1 S 5-14-64	--	8.0	2000	86 4.29 21	16 1.32 6	345 15.00 72	0.15 0.15 1	6 6 1	0	96 1.57 8	399 8.31 41	367 10.35 51	0.0	2.0	1.44	22	1260 1292	281
65/22E-36R 1 S 5-14-64	--	7.9	2300	38 1.90 8	8 0.66 3	470 20.44 88	0.18 0.18 1	7 7 1	0	122 2.00 9	437 9.10 40	420 11.84 51	4.5 0.07	3.0	1.07	27	1418 1475	128

TABLE E-1
 MINERAL ANALYSES OF GROUND WATER 1963/64
 COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in						parts per million equivalents per million reactance value				Mineral constituents in parts per million			
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total Dissolved Solids TDS	Total Hardness Total Ca + Mg
ARROYO SECO HYDRO SUBUNIT X15E0																	
11S/20E-15E 2 S 2-4-64	--	7.9	490	72	13	19	2	0	296	14	10	8.0	0.2	0.15	26	287	213
				3.59	1.07	0.83	0.05	4.85	0.29	0.28	0.13	0.1			310		
				65	19	15	1	87	5	5	2						
5-14-64	--	8.1	500	73	17	19	3	0	306	13	14	8.6	0.1	0.12	28	322	257
				3.64	1.40	0.83	0.08	5.02	0.27	0.39	0.14	0.1					
				61	24	14	1	86	5	7	2						
COLORADO HYDRO UNIT X1500																	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million				Mineral constituents in parts per million					
				Calcium Co	Magne- sium Mg	Sodium No	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fuo- ride F	Bur- en B	Sul- fo S ₂ O ₂	1.05 Evap. Resid. Evd. Resid.	Total Hardness as CaCO ₃
PALEO HYDRO SUBUNIT																	
X17B J																	
CHUCKWALLA HYDRO UNIT																	
X1700																	
55/15E-27C 1 S 5-15-64	--	8.1	700	28 1.40 19	4 0.33 5	125 5.44 75	3 0.08 1	0	138 2.26 32	116 2.42 34	86 2.43 34	2.3 0.04 1	4.0	0.63	22	442 459	87
55/15E-29K 1 S 5-11-64	--	8.2	450	12 0.60 12	2 0.16 3	95 4.13 84	2 0.05 1	0	215 3.52 73	23 0.48 10	16 0.45 9	22.0 0.35 7	3.0	0.35	19	290 300	38
55/16E-5B 1 S 5-15-64	77	8.7	800	10 0.50 6	2 0.16 2	173 7.52 91	3 0.08 1	0	118 1.93 24	157 3.27 41	96 2.71 34	2.2 0.04 1	3.0	0.65	21	488 526	33

TABLE E-1
 MINERAL ANALYSES OF GROUND WATER 1963/64
 COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				million per million				Mineral constituents in parts per million			
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	Iron	Copper	Zinc	Manganese
Date sampled				Ca	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂	Fe	Cu	Zn	
SAN GORGONIO HYDRO SUBUNIT				X17C															
BEAUMONT HYDRO SUBAREA				X17C1															
35/ 1E-7E 1 S	--	8.1	361	42	8	21	1	6	171	5	14	3.0	0	--	--	--	--	--	133
10- 8-63				2.00	0.66	0.71	0.03	0.20	2.80	0.10	0.39	0.05							182
				5b	18	25	1	6	79	3	11	1							
SAN GORGONIO HYDRO SUBAREA				X17C2															
25/ 1E-17L 1 S	--	7.5	341	41	11	8	2	0	165	16	7	1.0	0	--	--	--	--	--	148
10- 8-63				2.05	0.71	0.35	0.05		2.70	0.33	0.20	0.02							167
				61	27	10	1		83	10	6	1							
25/ 1E-33J 1 S	--	7.4	339	44	10	8	1	0	165	20	7	2.0	0	--	--	--	--	--	151
10- 8-63				2.20	0.87	0.35	0.03		2.70	0.42	0.20	0.03							174
				65	24	10	1		81	13	6	1							

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent				Mineral constituents in parts per million						
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Bromide	Sulfate	Chloride	Nitrate	Fluoride
Date sampled				Co	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	Br	SO ₂	SiO ₂	Hardness as CaCO ₃	
WHITEWATER HYDRO UNIT X1900																		
COACHELLA HYDRO SUBUNIT X19D0				MISSION CREEK HYDRO SUBAREA X19D2														
25/ 5E-30C 1 S	84	7.5	1247	93	21	132	10	0	146	380	67	6.0	1.1	0.60	--	--	855	319
10- 8-63				4.64	1.73	5.74	0.26		2.39	7.91	1.89	0.10					783	
				38	14	46	2		19	64	15	1						
25/ 5E-30G 1 S	120	9.0	1290	25	0	267	4	9	16	435	102	4.6	7.0	1.06	28		882	63
10-11-63				1.25	1.0	11.61	0.10	0.30	0.26	9.06	2.88	0.07					890	
				10		90	1	2	2	72	23	1						
25/ 5E-30K 1 S	120	8.1	1460	41	0	305	4	C	28	526	131	0.0	9.0	1.52	13		1024	103
10- 9-63				2.05		13.26	0.10		0.46	10.95	3.69						1044	
				13		86	1	3	3	73	24							
25/ 5E-30K 2 S	132	8.4	1640	41	0	360	6	--	26	598	159	0.0	8.0	1.66	19		1214	102
10-11-63				2.05		15.65	0.15		0.43	12.45	4.48						1205	
				11		88	1	2	2	72	26							
25/ 5E-30K 3 S	116	7.8	1480	36	0	300	5	0	31	526	111	0.0	9.0	1.56	20		1040	90
10-11-63				1.80		13.04	0.13		0.51	10.95	3.13						1024	
				12		87	1	3	3	75	21							
25/ 5E-30K 4 S	112	7.8	1320	24	2	275	9	0	83	433	103	1.4	3.0	0.69	10		872	73
10-11-63				1.30	0.16	11.96	0.23		1.36	9.02	2.90	0.02					904	
				10	1	88	2	10	10	68	22							
25/ 5E-30K 5 S	130	8.1	1575	41	4	315	6	0	65	524	131	4.6	5.0	1.36	27		1106	112
10-11-63				2.05	0.33	13.70	0.15		1.07	10.91	3.69	0.07					1091	
				13	2	84	1	7	7	69	23							
25/ 5E-30K 6 S	132	8.6	1850	52	0	380	7	6	15	640	170	0.0	8.0	1.54	21		1280	140
10-15-63				2.59		16.52	0.18	0.20	0.25	13.32	4.79						1293	
				13		86	1	1	1	72	26							

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million percent reactance value				Mineral constituents in parts per million						
				Calcium M g	Magne-sium M g	Sodium Na	Potas-sium K	Carbon-ate CO ₃	Bicar-bonate HCO ₃	Sulfate SO ₄	Chlo-ride Cl	Ni-trate NO ₃	Fluo-ride F	Boron B	Sili-co SiO ₂	I.D.S. Evap. Res. Co. Co. 102 Computed	Total Hardness Co. 103 Co. 104	
WHITEWATER HYDRO UNIT X1900																		
COACHELLA HYDRO SUBUNIT X1900				MISSION CREEK HYDRO SUBAREA X1920														
2S/ 5E-30K 7 S 10-15-63	132	7.9	1525	47 2.35 15	0	310 13.48 65	0.10	4	0	43	536 11.16 70	136 3.84 24	8.3 0.13 1	3.0	1.14	19	1086 1086	118
2S/ 5E-30K 8 S 10-15-63	122	8.2	1320	33 1.65 12	0	275 11.96 87	0.13	5	0	45	472 9.83 74	94 2.65 20	7.8 0.13 1	4.0	1.19	19	928 933	83
2S/ 5E-30K 9 S 10-15-63	125	7.3	1900	44 2.20 11	1	405 17.61 88	0.20	8	0	46	599 12.47 64	221 6.23 32	6.0 0.10 1	6.0	1.14	19	1324 1333	114
2S/ 5E-30L 1 S 10- 8-63	90	8.1	1192	22 1.10 10	6	225 9.78 85	0.10	4	6	31	400 8.33 72	89 2.51 22	0.0 0.0 1	5.4	0.80	--	773	80
2S/ 5E-31H 1 S 10- 8-63	94	8.0	1220	55 2.74 22	11	203 8.83 69	0.26	2	--	99	415 8.64 70	76 2.14 17	0.0 0.0 1	1.6	0.40	12	832 833	182
2S/ 5E-32B 1 S 10-11-63	168	8.7	1470	38 1.90 12	0	303 13.17 86	0.23	9	6	20	522 10.87 74	118 3.33 23	3.2 0.05 1	9.0	1.39	48	1086 1067	95
2S/ 5E-32D 1 S 10-15-63	120	8.1	580	12 J.60 11	0	110 4.78 87	0.10	4	0	54	168 3.50 66	23 0.93 17	0.0 0.0 1	4.0	0.32	15	362 373	30
2S/ 5E-32E 1 S 10-14-63	136	8.7	1390	26 1.30 9	0	283 12.30 89	0.18	7	9	13	484 10.48 75	79 2.21 21	0.0 0.0 1	9.0	1.34	43	962 968	65

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				Mineral constituents in parts per million									
				Calcium Co	Magne- sium Mg	Sodium No	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fos- phate P	Bor- on B	Sy- n- CO ₂	I.D.S. Exap (BOC Equiv. in ppm)	Total Hardness ppm CaCO ₃
25/ 5E-32E 2 S 1-11-63	13	8.0	1300	35 1.65 12	0	275 11.96 87	6 0.15 1	13 0.43 3	11 0.18 1	476 9.91 75	53 7.67 26	0.0	9.0	1.28	43	946	84
25/ 5E-32F 1 S 10-14-63	164	8.7	1300	31 1.45 11	0	273 11.87 87	8 0.20 1	5 0.17 1	22 0.36 3	484 10.08 76	76 2.71 20	0.0	9.0	1.17	45	954	78
25/ 5E-32F 3 S 1-15-63	168	8.1	1600	43 2.15 13	0	320 13.91 85	9 0.23 1	0 0.33 4	39 0.64 4	533 11.10 69	154 4.34 27	6.5 0.10 1	6.0	1.22	46	1156	108
25/ 5E-32G 1 S 10-11-63	166	8.8	1500	37 1.85 12	0	295 12.83 86	8 0.20 1	10 0.33 2	16 0.26 2	517 10.76 74	116 3.27 22	0.0	9.0	1.47	50	1068	93
25/ 5E-32G 2 S 10-11-63	158	8.8	1350	35 1.75 12	0	285 12.39 86	8 0.20 1	10 0.33 2	14 0.23 2	496 10.33 76	98 2.76 20	0.0	10.0	1.26	50	950	88
25/ 5E-32S 4 S 10-14-63	--	8.8	1440	30 1.50 11	0	287 12.48 88	7 0.18 1	13 0.43 3	6 0.10 1	497 10.35 75	105 2.96 21	0.0	10.0	1.46	50	1016	75
25/ 5E-32H 1 S 1-10-63	120	8.0	1770	59 2.94 15	0	363 15.78 83	10 0.26 1	0 0.33 3	41 0.67 4	622 12.95 70	171 4.82 26	3.2 0.05	7.0	1.43	26	1250	147
25/ 5E-32H 2 S 10-14-63	138	8.5	1575	35 1.75 11	0	335 14.57 88	9 0.23 1	4 0.13 1	25 0.41 3	552 11.49 71	147 4.15 26	4.1 0.17	10.0	1.46	45	1178	88

X1900

WHITewater HYDRO UNIT

COACHELLA HYDRO SUBUNIT
MISSION CREEK HYDRO SUBAREA

X1900

X1902

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million										Mineral constituents in parts per million					
				Calcium Mg	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Barium B	Sulfur dioxide SO ₂	I.D.S. Eval. as Computed	Total hardness as CaCl ₂		
COACHELLA HYDRO SUBUNIT				X1900										X1900					
MISSION CREEK HYDRO SUBAREA				X1902										X1902					
2S/ 5E-32K 1 S 10-11-63	145	8.7	1630	49 2,45 15	0	13,91 84	0.20	8	6	23	534	151	17.0	9.0	1.39	40	1158	123	
2S/ 5E-32L 1 S 10-11-63	130	8.7	1360	25 1,25 9	0	290 12,61 89	0.27	9	8	19	497	101	0.0	9.0	1.40	48	1032	63	
2S/ 5E-32L 2 S 10-11-63	158	8.8	1450	35 1,75 12	0	290 12,61 87	0.23	7	7	16	499	107	0.0	9.0	1.19	46	1008	88	
2S/ 5E-32P 1 S 10- 8-63	--	7.9	1180	56 2,89 22	7	222 9,65 72	0	9	0	129	436	64	1.4	3.0	0.60	24	884	174	
2S/ 5E-32R 1 S 10-14-63	112	8.5	1530	38 1,90 12	0	303 13,17 86	0.18	7	3	31	514	123	5.5	9.0	1.44	38	1064	95	
2S/ 5E-32R 2 S 10-14-63	112	8.7	1540	31 1,55 10	0	325 14,13 89	0.15	6	7	27	523	126	1.8	10.0	1.55	27	1060	78	
3S/ 4E- 2D 1 S 10- 8-63	84	7.8	555	53 2,64 45	8	55 2,39 41	0	8	0	113	166	16	1.4	0.6	0.09	18	386	165	
3S/ 4E-11B 1 S 10-10-63	84	8.1	560	58 2,89 47	8	56 2,43 39	0	9	0	131	165	17	1.8	0.6	0.09	13	424	178	
																		393	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million				Mineral constituents in parts per million					Total hardness as CaCO ₃					
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃		Fluoride F	Boron B	Silica SiO ₂	I.D.S. Evaporated or Computed	
WHITEWATER HYDRO UNIT																		
X1900																		
COACHELLA HYDRO SUBUNIT				X19D0				X19D2										
MISSION CREEK HYDRO SUBAREA				X19D2				X19D2										
3S/ 4E-11B 2 S 10- 4-63	--	8.2	580	57 2.84 46	8 0.66 11	55 2.39 39	0.23 4	9 4	0	146 2.39 39	164 3.41 55	14 0.39 6	0.9 0.01	0.6	0.14	13	424 393	175
3S/ 4E-11K 1 S 3-10-64	--	7.9	580	51 2.54 41	9 0.74 12	64 2.78 45	0.18 3	7 3	0	185 3.03 48	107 2.23 35	36 1.02 16	3.5 0.06 1	0.7	0.04	22	370 391	164
3S/ 4E-11L 1 S 3-10-64	--	7.8	424	35 1.75 40	4 0.33 8	49 2.13 49	0.15 3	6 3	0	156 2.56 58	30 0.62 14	40 1.13 26	6.0 0.10 2	0.4	0.02	23	250 270	104
3S/ 4E-13N 1 S 10- 8-63	--	7.9	315	27 1.35 39	3 0.25 7	40 1.74 50	0.13 4	5 4	0	124 2.03 62	48 1.00 30	9 0.25 8	0.9 0.01	0.6	0.11	16	200 211	80
3S/ 4E-15R 1 S 10- 8-63	80	8.1	373	6 0.30 9	3 0.25 7	63 2.74 82	0.05 1	2 1	6	79 1.29 38	60 1.25 37	21 0.59 18	2.0 0.03 1	0.4	0	--	202	28
3S/ 5E- 5B 1 S 10-15-63	107	8.9	1420	38 1.90 13	0 0.25 13	295 12.83 86	0.18 1	7 2	9 2	24 0.39 3	528 10.99 75	107 3.02 21	0.0 0.0	8.0	1.55	30	1010 1035	95
3S/ 5E- 6D 1 S 3-10-64	--	7.9	789	42 2.10 25	6 0.49 6	128 5.57 67	0.20 2	8 2	0	151 2.47 30	243 5.06 62	21 0.59 7	2.5 0.04	1.2	0.10	21	520 547	130
3S/ 5E- 6L 1 S 3-10-64	--	7.8	1241	82 4.09 31	12 0.99 8	180 7.83 59	0.28 2	11 2	0	117 1.92 15	466 9.70 74	51 1.44 11	5.0 0.08 1	0.8	0.14	20	860 885	254

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent reagent				Mineral constituents in parts per million						
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Sulfide S ₂	Total Dissolved Solids Evaporated at 180°C	Total Dissolved Solids Computed CaCO ₃		
WHITewater HYDRO UNIT														X1900				
COACHELLA HYDRO SUBUNIT				X19D0				MISSION CREEK HYDRO SUBAREA				X19D2						
35/ 5E- 7C 1 S 3-10-64	--	7.8	1208	74 3.69 28	18 1.48 11	180 7.83 59	12 0.31 2	0	0	217 3.56 27	393 8.18 62	50 1.41 11	3.0 0.05	0.8	0.22	26	860 864	259
35/ 5E- 7D 1 S 3-10-64	76	7.7	600	34 1.70 27	6 0.49 8	88 3.83 62	8 0.20 3	0	0	144 2.36 38	166 3.46 56	14 0.39 6	0.5 0.01	0.8	0.07	18	385 406	110
35/ 5E- 7E 1 S 3-10-64	--	8.2	650	37 1.85 27	6 0.49 7	100 4.35 63	7 0.18 3	0	0	161 2.64 38	178 3.71 54	15 0.42 6	6.0 0.10 1	0.9	0.06	21	415 450	117
35/ 5E- 7F 1 S 3-10-64	--	7.8	832	64 3.19 35	14 1.15 13	105 4.57 50	9 0.23 3	0	0	190 3.11 34	239 4.98 55	33 0.93 10	6.5 0.10 1	0.9	0.12	23	570 588	217
35/ 5E- 7F 2 S 3-10-64	--	7.9	912	69 3.44 35	14 1.15 12	115 5.00 84	10 0.26 3	0	0	183 3.00 30	268 5.58 57	40 1.13 11	9.0 0.15 2	0.8	0.15	24	615 640	230
35/ 5E- 8J 1 S 10- 8-63	87	7.8	1160	34 1.70 14	0 0.08 1	231 10.04 84	6 0.15 1	0	0	79 1.29 11	400 8.33 73	66 1.86 16	0.0 0.0	6.0	0.94	10	760 793	85
35/ 5F- 8J 2 S 10-15-63	85	7.4	1270	39 1.95 15	1 0.08 1	251 10.91 83	5 0.15 1	--	--	81 1.33 11	432 8.99 72	76 2.14 17	0.0 0.0	7.0	1.37	11	842 864	102
35/ 5E- 8J 3 S 10-15-63	85	7.8	1200	40 2.00 16	2 0.16 1	237 10.30 82	6 0.15 1	0	0	88 1.44 12	415 8.64 71	72 2.03 17	2.8 0.05	5.0	0.95	15	836 839	108

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million percent recharge value				Mineral constituents in parts per million								
				Calcium Co	Magne- sium Mg	Sodium No	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fluo- ride F	Boron B	Sili- co SiO ₂	Iron Fe	Alu- minum Al	Man- ganese Mn	Cu Cu	Zn Zn
COACHELLA HYDRO SUBUNIT																				
MIRACLE HILL HYDRO SUBAREA										X1900										
X1900										X1900										
2S/ 5E-32R 3 S 10-15-63	146	8.7	1440	25 1.25	0	298 12.96	7 0.18	8 0.27	15 0.25	2 0.2	504 10.49	110 3.10	0.0	1.51	42	1032	65			
2S/ 5E-33M 2 S 10-14-63	114	7.7	1775	56 2.79	0	375 16.31	8 0.20	0	53 0.87	558 11.62	208 5.67	17.0	7.0	25	1266	140				
2S/ 5E-33M 3 S 10-14-63	105	8.6	1640	48 2.40	0	332 14.48	7 0.13	4 0.13	25 0.41	549 11.43	173 4.88	5.5	9.0	34	1192	140				
2S/ 5E-33P 2 S 10-11-63	130	8.7	1500	40 2.00	0	293 12.74	6 0.15	6 0.20	24 0.39	502 10.45	112 3.16	0.0	1.0	24	986	100				
3S/ 5E-10H 2 S 10-14-63	176	8.4	1730	52 2.59	0	365 15.87	10 0.26	4 0.13	22 0.36	611 12.72	178 5.02	0.0	7.0	40	1256	120				
3S/ 5E-10R 1 S 10- 8-63	89	8.0	1400	17 0.85	6 3	295 12.83	10 0.26	0	71 1.16	498 10.37	116 3.27	0.0	7.0	6	974	67				
3S/ 5E-10R 2 S 10-14-63	123	8.3	2600	117 5.84	0	490 21.31	14 0.36	1 0.03	34 0.56	901 18.76	269 7.55	0.0	2.64	47	1866	221				
3S/ 5E-11M 3 S 10-14-63	178	8.5	1750	48 2.40	0	365 15.87	10 0.26	4 0.13	19 0.31	627 13.05	176 4.96	0.9	8.0	51	1322	120				

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent reactance value				Mineral constituents in parts per million					
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	TDS Evap. Residue Calcd.	Total hardness Evap. Residue Calcd.
COACHELLA HYDRO SUBUNIT																	
MIRACLE HILL HYDRO SURARFA																	
X1900																	
				X19D0				X19D3									
3S/ 5E-14C 1 S 10-14-63	130	8.5	2010	66 3.29 16	0	400 17.39 83	0.28 1	2 0.07	21 0.34 2	678 14.12 70	198 5.58 28	3.2 0.05	9.0	2.12	31	1406 1411	165
3S/ 5E-14G 1 S 10-14-63	132	8.3	1640	48 2.40 14	0	340 14.78 85	0.23 1	1 0.03	30 0.49 3	566 11.78 71	155 4.37 26	0.0	9.0	1.89	26	1156 1171	120
INDIO HYDRO SUBAREA																	
				X19D7													
5S/ 6E-13D 1 S 7-13-64	--	7.8	300	33 1.65 53	7 0.58 18	19 0.83 26	3 0.08 3	0 2.62 85	160 2.62 85	14 0.29 9	6 0.17 6	0.0	0.4	0.02	--	172 161	112
5S/ 6E-14P 1 S 7-13-64	--	7.5	280	28 1.40 48	5 0.41 14	23 1.00 35	3 0.08 3	0 2.00 72	122 2.00 72	22 0.46 17	11 0.31 11	0.0	0.1	0.09	--	154 152	91

TABLE E-1
 MINERAL ANALYSES OF GROUND WATER 1963/64
 COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million				Mineral constituents in parts per million										
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fluo- ride F	Boron B	Sil- ica SiO ₂	LD ₅₀ Cap. Use C	Total hardness as CaCO ₃	
Date sampled				X2240	X22A3	ANZA BORREGO HYDRO UNIT X2200												
BORREGO HYDRO SUBUNIT				BORREGO HYDRO SUBAREA														
10S/ 6E-17K 1 S 1-29-64	80	7.9	1060	1.93 4.64 41	21 1.73 15	108 4.70 42	0.23 2	9	0	215 3.52 32	274 5.70 51	67 1.89 17	2.7 0.04	0.8	0.19	--	720 681	319
10S/ 6E-24C 1 S 1-29-64	--	7.8	1330	81 4.04 31	3 0.25 2	194 8.44 65	10 0.26 2	0	0	29 0.48 4	330 6.87 54	187 5.27 42	1.0 0.02	0.9	0.35	--	883 821	215
10S/ 6E-33D 1 S 1-20-64	72	7.7	2165	269 13.42 57	46 3.78 16	144 6.26 27	6 0.15 1	0	0	178 2.92 13	435 9.06 40	183 5.16 23	348.0 5.61 25	0.6	0.19	--	1822 1519	861
10S/ 6E-35N 1 S 1-20-64	--	8.2	998	69 3.44 35	8 0.66 7	129 5.61 57	8 0.20 2	0	0	95 1.56 16	303 6.31 64	69 1.95 20	0.5 0.01	0.8	0.19	--	682 634	205

TABLE E-1
 MINERAL ANALYSES OF GROUND WATER 1963/64
 COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million reagentance value				Mineral constituents in parts per million				
				Calcium Cc	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total Hardness CaCO ₃
ANZA BORREGO HYDRO UNIT														X2200		
JACUMBA HYDRO SUBUNIT				MCCAIN HYDRO SUBAREA				X22G0				X22G1				
175/ 7E-30R 1 S 6-26-64	--	7.1	513	32 1.60 30	13 1.07 20	59 2.57 49	0 0.03 1	1 0.03 1	0 0 0	198 3.25 62	12 0.25 5	60 1.69 32	3.5 0.06 1	0.7 0.07 53	330 332	134
JACUMBA HYDRO SUBAREA																
175/ 8E-32FS1 S 1-30-64	--	8.0	2959	240 11.98 36	89 7.32 22	325 14.13 42	5 0.13 0	5 0.13 0	0 0 0	220 3.61 11	707 14.72 45	510 14.38 44	7.0 0.11 0	1.6 1.14 --	2225 1994	966
185/ 8E- 7J53 S 1-30-64	98	9.5	499	2 0.10 2	0 0 0	99 4.30 97	1 0.03 1	1 0.03 1	20 0.67 15	48 0.79 18	31 0.65 15	81 2.28 52	0.5 0.01 0	4.0 0.52 --	316 263	5
185/ 8E- 8K 3 S 1-30-64	68	7.8	1271	100 4.99 39	28 2.30 18	125 5.44 42	3 0.08 1	3 0.08 1	0 0 0	195 3.20 25	228 4.75 38	166 4.68 37	2.0 0.03 0	1.3 1.00 --	841 750	365

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in				parts per million equivalents per million				Mineral constituents in parts per million						
				Calcium Ca	Magne- sium Mg	Sodium Na	potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fluo- ride F	Boron B	Sili- co SiO ₂	I.D.S. Evap (I.D.S. Evap 105°C Computed Col. 3)	Ag harchess as Col. 3)	
IMPERIAL HYDRO SURUNIT X2300																		
X2300																		
155/20E-9A 1 S 5-20-64	--	7.7	3000	114 5.79 18	12 0.99 3	590 25.65 78	10 0.26 1	0	1.10 3	67	275 5.73 18	897 25.30 79	0.0	1.8	0.98	13	1900 1949	339
165/19E-36P 1 S 7-6-64	71	8.0	1240	61 3.04 23	52 4.28 32	137 5.96 45	4 0.10 1	0	2.74 21	167	326 6.79 51	129 3.64 28	2.0 0.03	0.2	0.26	--	818 794	366
145/19E-36P 2 S 7-6-64	76	7.2	1410	53 2.64 18	42 3.45 23	201 8.70 58	9 0.23 2	0	1.48 10	90	5 0.10 1	468 13.20 89	6.0 0.10 1	0.1	0.31	--	924 828	305

TABLE E-1
 MINERAL ANALYSES OF GROUND WATER 1963/64
 COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent reactance value				Mineral constituents in parts per million					
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlor- ide Cl	Ni- trate NO ₃	Fluo- ride F	Boron B	Silic- ic acid SiO ₂	Total Hardness as CaCO ₃	
95/13E-7M 1 S 2-21-64	140	6.5	7520	245 12.23 16	57 4.69 6	1380 60.00 76	77 1.97 2	0	773 12.67 16	171 3.56 4	2240 63.17 79	7.4 0.12	3.5	6.60	66	4670 4634	847
135/19E-330 1 S 12-9-63	86	7.6	1977	53 2.64 14	3 0.25 1	368 16.00 84	6 0.15 1	0	94 1.54 8	244 5.08 27	430 12.13 65	3.4 0.05	3.4	0.96	24	1185 1182	145

AMOS-OGILBY HYDRO UNIT X2600

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million				mineral constituents in parts per million						
				Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Iron Fe	Manganese Mn	Copper Cu
SANTA ANA RIVER HYDRO UNIT Y0100																		
LOWER SANTA ANA R. HYDRO SUBUNIT Y01A0																		
EAST COASTAL PLAIN HYDRO SUBAREA Y01A1																		
4S/ 9W-16G 2 S 3-30-64	--	7.7	1168	--	--	--	0	185 3.03	280 5.83	99	--	--	--	--	--	--	--	--
4S/ 9W-19D 3 S 1-15-64	--	7.7	1050	127 6.34	23 1.89	57 2.48	5 0.13	0 4.06	191 3.98	89 2.51	22 0.35	0.7	0.01	0.666	412	637	649	422
6-16-64	--	7.7	965	126 6.29	26 2.14	62 2.70	5 0.13	0 4.10	192 4.00	92 2.59	22 0.35	0.6	0.08	670	422	649	422	422
4S/ 9W-22M 2 S 5-19-64	--	7.8	928	96 4.79	27 2.22	60 2.61	2 0.05	0 3.74	143 2.98	74 2.09	35 0.56	0.4	0.06	579	351	550	550	351
4S/ 9W-27F 1 S 3-17-64	--	7.7	1006	109 5.44	39 3.21	49 2.13	2 0.05	0 4.23	210 4.37	66 1.86	39 0.63	0.4	0.06	700	433	656	700	433
3-24-64	--	7.6	945	97 4.84	33 2.71	47 2.04	2 0.05	0 3.39	170 3.54	64 1.80	38 0.61	0.3	0.01	591	378	591	591	378
8-19-64	--	7.6	1050	124 6.19	33 2.71	45 1.96	2 0.05	0 3.87	201 4.18	77 2.17	43.0 0.69	0.3	0.10	707	445	707	707	445
4S/ 9W-28J 1 S 3-24-64	--	7.7	1100	119 5.94	41 3.37	44 1.91	2 0.05	0 4.38	178 3.71	86 2.43	56 0.90	0.3	0.01	711	466	711	711	466

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million						parts per million equivalents per million percent reactance value					Mineral constituents in parts per million				
				Calcium M g	Magne sium M g	Sodium Na	Potas sium K	Carbon ate CO ₃	Bicar bonate HCO ₃	Sulfate SO ₄	Chlo ride Cl	Ni trate NO ₃	Fluor ide F	Boron B	Sul ca S O ₂	I.D.S. Exp. (D.S.C. Computed)	Total Address (D.S.C. Co.Cs)		
SANTA ANA RIVER HYDRO UNIT Y0100																			
LOWER SANTA ANA R. HYDRO SUBUNIT Y01A0																			
EAST COASTAL PLAIN HYDRO SUBAREA Y01A1																			
4S/ 9W-28J 1 S 9-22-64	--	7.7	1110	119 5.94 52	42 3.45 30	47 2.04 18	0.05	2	0	276 4.52 38	186 3.87 33	95 2.68 23	47.0 0.76 6	0.5	0.06	--	734 674	470	
4S/ 9W-31B 1 S 4-15-64	--	7.6	546	--	--	--	--	--	0	216 3.54	49 1.02	35 0.99	--	--	--	--	--	--	
5-18-64	--	7.4	588	66 3.29 56	10 0.82 14	38 1.65 28	3	0	212 3.47 60	49 1.02 18	40 1.13 20	8.7 0.14 2	0.5	0.06	--	--	322 319	206	
9-23-64	74	7.7	616	73 3.64 59	12 0.99 16	33 1.43 23	3	0	211 3.46 56	55 1.15 19	48 1.35 22	15.5 0.25 4	0.4	0.01	23	377 367	232		
4S/10W- 3P 2 S 9-21-64	--	7.6	1010	114 5.69 55	22 1.81 17	64 2.78 27	5	0	242 3.97 38	182 3.79 36	93 2.62 25	12.0 0.19 2	0.6	0.10	--	--	616 612	375	
4S/10W-13M 1 S 2-20-64	--	8.0	1125	108 5.39 46	23 1.89 16	100 4.35 37	6	0	182 2.98 26	278 5.19 50	95 2.66 23	5.0 0.08 1	0.7	0.12	--	--	748 705	364	
9-22-64	--	7.5	1110	97 4.84 43	25 2.06 18	95 4.13 37	6	0	168 2.75 24	272 5.66 50	99 2.79 25	5.6 0.09 1	0.7	0.08	--	--	706 683	345	
4S/10W-14D 2 S 4-15-64	--	7.4	924	--	--	--	--	0	231 3.79	186 3.87	74 2.09	--	--	--	--	--	--	--	

TABLE C-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent				Mineral constituents in parts per million					
				Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Fluoride F	Boron B	Silica SiO ₂	Iron Fe	Copper Cu	Zinc Zn
SANTA ANA RIVER HYDRO UNIT																	
Y0100																	
LOWER SANTA ANA R. HYDRO SUBUNIT Y01A0																	
EAST COASTAL PLAIN HYDRO SUBAREA Y01A1																	
4S/10W-14H 2 S 4-10-64	--	8.2	941	--	--	--	--	0	241 3.95	165 3.44	74 2.09	--	--	--	--	--	--
4S/10W-15B 2 S 2-20-64	--	7.8	1000	118 5.89 56	22 1.81 17	61 2.65 25	4 0.10 1	0	229 3.75 36	201 4.18 40	78 2.20 21	14 0.23 2	0.6	--	--	658 611	385
4S/10W-18C 2 S 8-18-64	--	7.6	852	109 5.44 61	16 1.32 15	46 2.00 22	5 0.13 1	0	266 4.36 49	101 2.10 24	71 2.00 23	24.0 0.39 4	0.5	--	--	522 503	338
4S/10W-24D 2 S 3-17-64	--	7.8	1093	--	--	--	--	0	207 3.39	260 5.41	90 2.54	--	--	--	--	--	--
4S/10W-24D 3 S 4-16-64	--	7.5	885	109 5.44 59	19 1.56 17	50 2.17 23	4 0.10 1	0	209 3.43 37	179 3.73 40	72 2.03 22	5.6 0.09 1	0.4	--	--	612 542	350
4S/10W-24J 1 S 5-19-64	--	7.7	494	57 2.84 54	10 0.82 16	35 1.52 29	3 0.08 2	0	208 3.41 65	48 1.00 19	27 0.76 15	2.5 0.04 1	0.5	--	--	274 285	183
4S/10W-25N 1 S 3-17-64	--	7.8	1048	--	--	--	--	0	191 3.13	256 5.33	88 2.48	--	--	--	--	--	--
4S/10W-28M 1 S 6-19-64	--	7.8	960	114 5.69 54	26 2.14 20	59 2.57 24	4 0.10 1	0	287 4.70 45	144 3.00 29	79 2.23 21	29 0.47 5	0.4	--	--	630 597	392

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million						parts per million equivalents per million reagent value					Mineral constituents in parts per million				
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Barium B	Silica SiO ₂	Total Dissolved Solids TDS	Total Hardness TDS		
LOWER SANTA ANA R. HYDRO SUBUNIT Y01A0																			
EAST COASTAL PLAIN HYDRO SUBAREA Y01A1																			
SANTA ANA RIVER HYDRO UNIT Y0100																			
4S/10W-29M 1 S 10-2-63	77	7.9	1037	--	--	--	--	303 4.97	--	84 2.37	--	--	--	--	--	--			
4S/10W-31F 1 S 6-16-64	--	8.1	804	106 5.29 59	18 1.48 17	46 2.00 22	0.13 0.1 1	0 270 4.43	50 50	67 1.89 21	123 2.56 29	1.9 0.03	0.6	0.03	--	500 500			
4S/10W-33F 1 S 4-16-64	--	7.5	962	121 6.04 60	21 1.73 17	51 2.22 22	4 0.10 1	0 3.97 39	242 3.02 29	92 2.59 25	145 3.02 29	42 0.68 7	0.4	0.04	--	634 595			
4S/10W-34N 1 S 2-20-64	--	7.7	1020	123 6.14 59	25 2.06 20	50 2.17 21	4 0.10 1	0 4.61 44	281 3.27 31	74 2.09 20	157 3.27 31	30 0.48 5	0.6	0.10	--	639 602			
8-19-64	--	7.5	1040	118 5.89 54	35 2.68 26	49 2.13 19	4 0.10 1	0 4.65 43	284 3.46 32	81 2.28 21	166 3.46 32	33.0 0.53 5	0.5	0.05	--	685 626			
4S/11W-16G 1 S 8-16-64	--	7.5	487	48 2.40 48	8 0.66 1	43 1.87 38	2 0.05 1	0 3.65 71	223 0.92 18	20 0.56 11	44 0.92 18	0.0	0.6	0.13	--	288 275			
4S/11W-19J 3 S 8-18-64	--	7.5	487	55 2.74 54	10 0.82 16	33 1.43 28	3 0.08 2	0 3.77 75	230 0.75 15	18 0.51 10	36 0.75 15	0.0	0.5	0.06	--	282 269			
4S/11W-24A 1 S 3-24-64	--	7.8	815	92 4.59 56	18 1.48 18	47 2.04 25	4 0.10 1	.0 4.26 51	260 1.85 22	65 1.83 22	89 1.85 22	24.0 0.39 5	0.3	0.03	--	475 467			

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million							Mineral constituents in parts per million						
				Calcium Mg	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fluo- ride F	Boron B	Sili- co SiO ₂	T.D. Equiv. Mg 105°C Computed	Total Hardness CaCO ₃
LOWER SANTA ANA R. HYDRO SUBUNIT Y01A0																	
EAST COASTAL PLAIN HYDRO SUBAREA Y01A1																	
SANTA ANA RIVER HYDRO UNIT Y0100																	
4S/11W-24A 1 S 8-10-64	--	7.6	825	99 4.94 60	15 1.23 15	45 1.96 24	0 0.13 2	5 0.13 2	0 0.13 2	257 4.21 51	84 1.75 21	66 1.86 23	25.0 0.40 5	0.5	0.10	--	493 309
4S/11W-24D 3 S 8-10-64	--	7.6	930	114 5.69 60	18 1.48 16	51 2.22 23	5 0.13 1	5 0.13 1	0 0.13 1	198 3.25 34	196 4.08 43	76 2.14 22	6.8 0.11 1	0.6	0.08	--	634 359
4S/11W-24P 1 S 7- 3-64	66	7.9	550	54 2.69 43	23 1.89 30	36 1.57 25	3 0.08 1	3 0.08 1	0 0.08 1	245 4.02 66	60 1.25 21	29 0.82 13	0.0 0.0 0	0.4	0.10	--	338 229
5S/ 8W-31K 1 S 3- 9-64	--	7.7	1882	--	--	--	--	--	0	329 5.39	--	2 0.06	--	--	--	--	326
5S/ 8W-32L 1 S 3-12-64	--	7.3	1815	132 6.59 33	55 4.52 23	195 8.48 43	5 0.13 1	5 0.13 1	0 0.13 1	333 5.46 27	462 9.62 48	166 4.68 23	12.0 0.19 1	0.6	0.16	36	1245 556
5S/ 9W- 4D 1 S 5-18-64	--	8.5	392	18 0.90 21	2 0.16 4	73 3.17 74	2 0.05 1	2 0.05 1	7 0.23 5	139 2.28 54	44 0.92 22	20 0.56 13	15 0.24 6	0.4	0.06	--	249 53
5S/ 9W- 5R 1 S 5-24-64	--	7.6	588	58 2.89 46	13 1.07 17	51 2.22 36	2 0.05 1	2 0.05 1	0 0.05 1	195 3.20 54	77 1.60 27	34 0.96 16	11 0.18 3	0.1	0.04	--	250 198
5S/ 9W-14O 2 S 3-17-64	--	7.4	1814	114 5.69 30	38 3.13 16	232 10.09 53	4 0.10 1	4 0.10 1	0 0.10 1	325 5.33 27	413 8.60 44	185 5.22 27	32.0 0.52 3	0.3	0.29	30	1263 441
																	1208

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million				Mineral constituents in parts per million			
				Calcium Co.	Magne-sium Mg	Sodium No.	Potas-sium K	Carbon-ate CO ₃	Bicar-bonate HCO ₃	Sulfate SO ₄	Chlo-ride Cl	No. ions per liter	Fu-ade	Hard-ness	Temp. Cor-rected
SANTA ANA RIVER HYDRO UNIT Y0100															
LOWER SANTA ANA R. HYDRO SUBUNIT Y01A0															
EAST COASTAL PLAIN HYDRO SUBAREA Y01A1															
55/ 9W-15J 1 S 3- 9-64	--	7.8	869	--	--	--	--	0	256 4.20	131 2.73	66 1.86	--	--	--	--
55/ 9W-160 ? S 2-19-64	--	7.6	854	93 4.64 52	26 2.14 24	50 2.17 24	2 0.05 1	0	244 4.00 45	130 2.71 31	61 1.72 20	23.0 0.37 4	0.11	--	557 505
8-17-64	--	7.5	867	100 4.99 56	24 1.97 22	45 1.96 22	2 0.05 1	0	245 4.02 44	137 2.85 31	65 1.83 20	24.0 0.39 4	0.07	--	568 518
55/ 9W-218 1 S 3-17-64	--	7.5	1182	124 6.19 51	33 2.71 22	73 3.17 26	2 0.05 1	0	299 4.90 39	200 4.16 33	87 2.45 19	66.0 1.06 8	0.02 19	--	823 751
55/ 9W-24H 1 S 3- 9-64	--	7.8	1955	--	--	--	--	0	336 5.51	-- 5.84	207 5.84	--	--	--	--
55/ 9W-25E 1 S 1-27-64	--	7.4	1147	58 2.89 24	35 2.88 24	145 6.30 52	3 0.08 1	0	367 6.02 49	200 4.16 34	72 2.03 17	3.7 0.06	0.15	--	715 698
3- 9-64	--	7.8	1129	57 2.84 23	31 2.55 21	158 6.87 56	4 0.10 1	0	380 6.23 51	191 3.98 33	66 1.86 15	2.5 0.04	0.29	35	708 732
55/ 9W-31B 1 S 2-19-64	--	7.8	442	27 1.35 30	6 0.49 11	61 2.65 58	2 0.05 1	0	174 2.85 64	53 1.10 25	18 0.51 11	0.6 0.01	0.05	--	271 254

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				parts per million				Mineral constituents in parts per million			
				Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Ferric oxide F ₂ O ₃	Bromine Br	Silica SiO ₂	Free Boric acid H ₃ BO ₃	Total hardness as CaCO ₃ Computed Total		
SANTA ANA RIVER HYDRO UNIT																			
LOWER SANTA ANA R. HYDRO SUBUNIT Y01A0																			
EAST COASTAL PLAIN HYDRO SUBAREA Y01A1																			
5S/ 9W-31B 1 S 8-17-64	--	7.5	426	22 1.10 26	4 0.33 8	65 2.83 66	2 0.05 1	0	160 2.62 62	52 1.08 25	20 0.56 13	0.0	0.4	0.08	--	271 244	77		
5S/ 9W-32A 1 S 3-17-64	--	8.4	422	14 0.70 15	3 0.25 6	81 3.52 78	2 0.05 1	0.23 2.75 5	168 2.75 53	47 0.98 22	12 0.42 10	0.0	0.5	0.05	13	285 265	46		
5S/ 9W-34J 1 S 3-12-64	--	7.8	788	--	--	--	--	0 4.28	261 4.28	--	66 1.86	--	--	--	--	--	--		
5S/ 9W-34J 2 S 3-12-64	--	7.7	1225	--	--	--	--	0 6.44	393 6.44	--	73 2.06	--	--	--	--	--	--		
5S/ 9W-34O 1 S 3-17-64	--	7.7	959	--	--	--	--	0 3.65	223 3.65	--	164 4.62	--	--	--	--	--	--		
5S/ 9W-35J 1 S 6-15-64	--	7.7	965	76 3.79 34	27 2.22 20	118 5.13 46	5 0.13 1	0	305 5.00 45	181 3.77 34	83 2.34 21	3.1 0.05	0.5	0.11	--	690 644	301		
5S/ 9W-36B 1 S 3-12-64	--	7.5	2140	168 8.38 35	74 6.09 26	213 9.26 39	4 0.10	0	395 6.47 27	446 9.29 39	254 7.16 30	58.0 0.94 4	0.3	0.19	32	1522 1444	724		
5S/ 10W-1E 2 S 3-23-64	--	7.7	705	84 4.19 57	16 1.32 18	40 1.74 24	3 0.08 1	0	220 3.61 50	69 1.44 20	62 1.75 24	25 0.40 6	0.3	0.02	--	427 407	276		

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				mineral constituents in parts per million						
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fluo- ride F	Boro- n B	Sili- ca SiO ₂	I.D.S. Exp. 105°C as Computed Co ₂	Total hardness as Co ₂	
LOWER SANTA ANA R. HYDRO SUBUNIT Y01A0																		
EAST COASTAL PLAIN HYDRO SUBAREA Y01A1																		
SANTA ANA RIVER HYDRO UNIT																		
Y0100																		
5S/10W-2B 1 S 2-20-64	--	7.7	854	108 5.39 59	19 1.56 17	49 2.13 23	0.10	4	0	290 4.75 52	131 2.73 30	56 1.58 17	6.8 0.11 1	0.6	0.07	--	539 517	348
5S/10W-4E 1 S 1-15-64	--	7.6	810	99 4.94 60	17 1.40 17	41 1.78 22	0.10	4	0	259 4.25 50	124 2.58 31	49 1.38 16	14 0.23 3	0.7	0.02	--	507 476	317
5-18-64	--	7.5	814	99 4.94 58	18 1.48 17	45 1.96 23	0.10	4	0	261 4.28 50	116 2.42 28	55 1.55 18	16 0.26 3	0.5	0.04	--	503 482	321
5S/10W-10D 2 S 10- 9-63	77	7.9	847	--	--	--	--	--	--	296 4.85	--	62 1.75	--	--	--	--	--	--
6-16-64	--	8.1	800	99 4.94 55	22 1.81 20	48 2.09 23	0.10	4	0	274 4.49 50	116 2.42 27	70 1.97 22	11 0.18 2	0.2	0.10	--	540 505	338
5S/10W-13B 3 S 6-22-64	70	7.7	469	50 2.50 51	11 0.90 18	33 1.43 29	0.05	2	0	207 3.39 69	41 0.85 17	22 0.62 13	2.5 0.02	0.5	0.08	--	278 263	170
5S/10W-25R 1 S 1-27-64	--	8.6	364	5 0.25 7	0.08 ? ?	74 3.22 90	1	15	0.50	137 2.25 61	22 0.46 12	17 0.48 13	0.6 0.01	0.7	0.08	--	235 204	17
6-15-64	--	8.9	386	4 0.20 5	0 ? ?	85 3.70 94	1	0	0	174 2.85 73	22 0.46 12	20 0.56 14	0.6 0.01	0.8	0.11	--	218 219	10

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent reactance value				Mineral constituents in parts per million						
				Calcium Co	Magne- sium Mg	Sodium No	Potas- sium K	Carbon- ate CO ₃	Bicarb- onate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fluo- ride F	Baron B	Sili- co SiO ₂	I.D.S. Exp- 1050C Com- pound	Total hardness as CaCO ₃	
5S/10W-26D 3 S 2-19-64	--	7.5	481	46 2.30 46	10 0.82 16	42 1.83 37	0.05 0.05 1	2 1	0	204 3.34 66	52 1.08 21	19 0.54 11	4.3 0.07 1	0.3	0.09	--	284 276	156
5S/10W-26N 1 S 1-27-64	--	7.6	486	46 2.30 47	11 0.90 19	37 1.61 33	0.05 0.05 1	2 1	0	199 3.26 63	64 1.33 26	20 0.56 11	1.2 0.02	0.3	0.03	--	313 279	160
5S/10W-27E 1 S 2-19-64	--	8.2	378	6 0.30 7	0 0.74 92	86 3.74 92	1 0.03 1	0	0	177 2.90 74	23 0.48 12	18 0.51 13	2.5 0.04 1	0.7	0.10	--	219 224	15
5S/10W-28H 2 S 6-16-64	--	8.0	900	60 2.99 29	47 3.87 38	75 3.26 32	2 0.05	0	0	419 6.87 68	62 1.29 13	69 1.95 19	0.0	0.8	0.15	--	540 522	343
5S/10W-28Q 1 S 6-16-64	--	7.4	470	42 2.10 42	13 1.07 21	41 1.78 36	2 0.05 1	0	0	203 3.33 68	48 1.00 20	21 0.59 12	0.0	0.4	0.07	--	276 267	159
5S/10W-29P 4 S 6-16-64	--	7.8	650	68 3.39 48	21 1.73 25	42 1.83 26	3 0.08 1	0	0	264 4.33 61	74 1.54 22	43 1.21 17	3.0 0.05	0.4	0.13	--	400 384	256
5S/10W-30L 4 S 10-1-63	65	9.4	255	12 0.60 21	9 0.74 26	33 1.43 50	4 0.10 3	19 0.63 21	73 1.20 41	34 0.71 24	14 0.39 13	1.0 0.02	0.5	0.04	23	138 185	67	
4-13-64	64	9.1	282	18 0.90 33	5 0.41 15	30 1.30 48	3 0.08 3	12 0.40 14	67 1.10 40	37 0.77 28	17 0.48 17	1.0 0.02	0.4	0.03	--	158 156	66	

SANTA ANA RIVER HYDRO UNIT Y0100

LOWER SANTA ANA R. HYDRO SUBUNIT Y01A0
EAST COASTAL PLAIN HYDRO SUBAREA Y01A1

TABLE E-1
 MINERAL ANALYSES OF GROUND WATER 1963/64
 SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million						Mineral constituents in million parts per billion								
				Calcium Co	Magnesium Mg	Sodium No	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total dissolved solids (TDS) in mg/l	Total dissolved solids (TDS) in mg/l (Computed)	
LOWER SANTA ANA R. HYDRO SUBUNIT YOLIAU																		
EAST COASTAL PLAIN HYDRO SUBAREA Y01A1																		
Y0100																		
55/10W-30L 5 5 10- 1-63	--	8.4	397	44 2.20 51	0.58 1.43 14	33 1.43 33	0.08 0.06 2	3	0	190 3.11 74	34 0.71 17	12 0.34 8	1.5 0.02	0.5	0.12	30	219 259	139
4-13-64	64	8.5	422	48 2.40 54	0.66 1.30 15	30 1.30 29	0.05 0.05 1	2	7 0.23 5	184 3.02 68	36 0.75 17	16 0.45 10	0.8 0.01	0.5	0.05	--	248 239	153
55/10W-30L 6 5 10- 1-63	65	8.6	434	34 1.70 38	0.82 1.87 18	43 1.87 42	0.10 0.08 2	4	17 0.57 12	123 2.02 44	55 1.15 25	29 0.82 18	1.4 0.02	0.5	0.04	24	238 278	126
4-13-64	64	8.7	526	61 3.04 55	1.0 0.82 15	37 1.61 29	0.08 0.08 1	3	12 0.40 7	185 3.03 55	61 1.27 23	29 0.82 15	1.2 0.02	0.5	0.07	--	300 306	193
55/10W-30N 4 5 8- 4-64	--	8.1	495	60 2.99 54	0.99 1.43 18	33 1.43 26	0.08	3	0	231 3.79 68	54 1.12 20	23 0.65 12	1.0 0.02	0.7	0.08	23	300 323	199
55/10W-30P 3 5 8- 4-64	--	8.0	428	50 2.50 54	0.74 1.35 16	31 1.35 29	0.05	2	0	219 3.59 75	37 0.77 16	14 0.39 8	1.0 0.02	0.6	0.08	23	250 275	162
55/10W-30Q 1 5 6-17-64	--	7.8	600	60 2.99 44	1.81 1.91 27	44 1.91 28	0.05	2	0	275 4.51 66	72 1.50 22	31 0.87 13	0.0	0.2	0.10	--	368 367	240
55/10W-31A 14 5 8- 4-64	--	7.9	908	123 6.14 58	1.97 2.30 19	53 2.30 22	0.10	4	0	364 5.97 57	129 2.69 26	64 1.80 17	2.0 0.03	0.7	0.10	25	620 604	406

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Date sampled	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in					parts per million equivalents per million parts per million					Mineral constituents in parts per million				
					Calcium M g	Magne- sium M g	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fluor- ide F	Boron B	Sili- ca SiO ₂	TDSS (Equiv. to CaCO ₃) Computed	Total Magnets (ppm)	
5S/10W-31B 7 S 8- 4-64		--	7.9	415	49	8	31	2	0	212	34	14	1.0	0.6	0.08	19	235	156	
					2.45	0.66	1.35	0.05	3.47	0.71	0.39	0.02	76	15	b				
5S/10W-31B 8 S 8- 4-64		--	7.9	468	50	12	41	2	0	273	3	26	0.0	0.6	0.10	14	265	175	
					2.50	0.99	1.78	0.05	4.47	0.06	0.73		85	1	14				
5S/10W-31C 7 S 8- 4-64		--	7.8	498	59	12	34	2	0	240	47	22	0.0	0.5	0.08	22	290	197	
					2.94	0.99	1.48	0.05	3.93	0.98	0.62		71	18	11				
5S/10W-31C11 S 8- 5-64		--	8.2	410	53	5	35	3	0	215	38	13	0.0	0.6	0.17	--	254	153	
					2.64	0.41	1.52	0.08	3.52	0.79	0.37		75	17	8				
5S/10W-31H 3 S 8- 5-64		--	8.4	585	49	29	42	3	12	237	51	43	2.0	0.4	0.08	--	392	242	
					2.45	2.38	1.83	0.08	0.40	3.88	1.06	1.21	0.03	16	18				
5S/10W-31J 1 S 11- 5-63		--	7.9	420	36	22	34	2	0	260	14	14	0.0	0.2	0.18	16	296	181	
					1.80	1.81	1.48	0.05	4.26	0.29	0.39		86	6	8				
8- 4-64		--	8.2	460	49	15	37	2	0	269	21	20	1.0	0.4	0.22	--	430	184	
					2.45	1.23	1.61	0.05	4.41	0.44	0.56		81	8	10	0.02			
5S/10W-31K 1 S 8- 5-64		--	8.2	460	52	12	38	2	0	241	29	21	1.0	0.4	0.08	--	292	179	
					2.59	0.99	1.65	0.05	3.95	0.60	0.59		77	12	11	0.02			

LOWER SANTA ANA R. HYDRO SUBUNIT Y01A0
EAST COASTAL PLAIN HYDRO SUBAREA Y01A1
SANTA ANA RIVER HYDRO UNIT Y0100

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent reactance value				Mineral constituents in parts per million						
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Sul- fide S	Phos- phate P	Amo- nium NH ₄	Fluor- ide F	Other B	Total I.D.S. Exp. by Computed
55/10W-31L 2 S 11- 5-63	--	7.6	2690	335 16.72	82 6.74	153 6.65	0.15	6	0	166 2.72	61 1.27	920 25.94	0.0	0.1	0.20	16	2178 1655	1174
55/10W-31L 3 S 8- 5-64	69	8.0	595	49 2.45	22 1.81	46 2.00	0.08	3	0	167 2.74	92 1.92	60 1.69	0.0	0.2	0.08	--	374 354	213
55/10W-31R 7 S 8- 5-64	--	8.2	540	42 2.10	28 2.30	42 1.83	0.05	2	0	273 4.47	44 0.92	24 0.68	0.0	0.4	0.05	--	352 317	220
55/10W-32C 1 S 8- 4-64	--	8.0	780	75 3.74	36 2.96	52 2.26	0.08	3	0	272 4.46	141 2.94	60 1.69	1.0	0.4	0.22	--	486 502	335
55/10W-32C1U S 8- 4-64	--	8.1	2125	145 7.24	48 3.95	271 11.78	0.13	5	0	510 8.36	461 9.60	168 4.74	5.0	0.6	0.73	--	1586 1355	560
55/10W-32F 4 S 8- 4-64	--	8.2	900	86 4.29	38 3.13	72 3.13	0.10	4	0	270 4.43	166 3.46	89 2.51	3.0	0.4	0.22	--	638 591	371
55/10W-33C 2 S 1-27-64	--	7.8	626	47 2.35	12 0.99	66 2.87	0.05	2	0	194 3.18	99 2.06	34 0.96	0.6	0.5	0.04	--	396 356	167
55/10W-33D 1 S 6-23-64	--	7.9	410	39 1.95	7 0.58	37 1.61	0.05	2	0	184 3.02	38 0.79	15 0.42	0.0	0.4	0.03	--	234 229	127

Y0100

SANTA ANA RIVER HYDRO UNIT

LOWER SANTA ANA R. HYDRO SUBUNIT Y01A0
EAST COASTAL PLAIN HYDRO SUBAREA Y01A1

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				parts per million				Mineral constituents in parts per million					
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Sulfide	Fluoride	Iron	Strontium	Silica	Total hardness as CaCO ₃			
Date sampled				Ca	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂	Fe	As	SO ₂	Compared	CaCO ₃	
SANTA ANA RIVER HYDRO UNIT Y0100																					
LOWER SANTA ANA R. HYDRO SUBUNIT Y01A0																					
EAST COASTAL PLAIN HYDRO SUBAREA Y01A1																					
5S/11W-36J 2 S 4-10-64	--	7.6	6687	348 17.37 23	190 15.63 21	970 42.18 56	10 0.26	0	210 3.44 5	1639 34.12 45	1378 38.86 51	0.2	0.7	0.16	13	4877 4652	1651				
5S/11W-1H 1 S 5-18-64	--	7.9	756	90 4.49 57	17 1.4 18	43 1.87 24	4 0.10	0	264 4.33 56	86 1.79 23	54 1.52 20	7.4 0.12 2	0.5	0.04	--	471 432	295				
5S/11W-3H 4 S 4-15-64	--	7.6	476	57 2.84 57	10 0.82 16	29 1.26 25	3 0.08	0	220 3.61 70	42 0.87 17	23 0.65 13	0.0	0.5	0.04	--	299 273	183				
5S/11W-4D 1 S 1-27-64	--	7.7	431	43 2.15 49	9 0.74 17	33 1.43 33	2 0.05	0	207 3.39 77	28 0.58 13	16 0.45 10	0.6 0.01	0.5	0.04	--	263 234	145				
6-15-64	--	8.0	420	44 2.20 48	9 0.74 16	37 1.61 35	2 0.05	0	210 3.44 74	35 0.73 16	17 0.48 10	0.6 0.01	0.5	0.05	--	231 248	147				
5S/11W-7C 1 S 10-9-63	25	8.2	399	34 1.70 39	8 0.66 15	44 1.91 44	2 0.05	--	186 3.05 74	34 0.71 17	12 0.34 8	0.0	0.4	0.04	16	210 242	118				
6-22-64	78	8.4	330	6 0.30 9	1 0.08 2	71 3.09 88	1 0.03	2 0.07 2	153 2.51 75	17 0.35 10	15 0.42 13	0.0	0.6	0.10	--	216 189	19				
5S/11W-7C 2 S 10-9-63	--	8.8	323	--	--	--	--	7 0.23	144 2.36	--	13 0.37	--	--	--	--	--	--				

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				Mineral constituents in parts per million				Mineral constituents in parts per million					
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	Total hardness as CaCO ₃	
Date sampled				Co	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂	Computed	
LOWER SANTA ANA R. HYDRO SUBUNIT Y01A0																	
EAST COASTAL PLAIN HYDRO SUBAREA Y01A1																	
Y0100																	
5S/11W-7C ? S	--	8.2	350	4	0.08	1	75	1	0	19	14	0.0	0.6	0.07	--	228	14
6-22-64				0.20	0.08	3.26	0.03	2.64	2.64	0.40	0.39	14	0.4	0.07	--	194	14
				6		91	1	77		12	11						
5S/11W-8C 1 S	25	7.8	1059	74	26	110	4	--	--	284	88	0.0	2.9	0.12	12	677	292
10-9-63				3.59	2.14	4.78	0.10	2.18	2.18	5.91	2.48	0.0	2.9	0.12	12	677	292
				34	20	45	1	21	21	56	23						
10-15-63	25	7.7	747	--	--	--	--	--	148	--	53	--	0.4	--	--	666	
									2.43		1.49						
10-15-63	25	8.1	391	--	--	--	--	--	176	--	12	--	0.4	--	--		
									2.88		0.34						
5S/11W-11Q 3 S	--	7.1	625	73	13	33	9	0	222	59	37	8.7	0.7	0.11	--	362	236
4-16-64				3.64	1.07	1.43	0.23	3.64	3.64	1.23	1.04	0.14	0.7	0.11	--	343	
				57	17	22	4	60	60	20	17	2					
5S/11W-14A 4 S	--	7.9	545	57	13	35	3	0	250	43	24	0.0	0.4	0.05	--	304	196
6-17-64				2.84	1.07	1.52	0.08	4.10	4.10	0.70	0.68	0.0	0.4	0.05	--	298	
				57	19	28	1	72	72	16	12						
5S/11W-14A 9 S	--	7.6	500	62	11	36	3	0	256	37	22	0.0	0.4	0.07	--	304	200
6-19-64				3.49	0.90	1.57	0.08	4.20	4.20	0.77	0.62	0.0	0.4	0.07	--	297	
				55	16	28	1	75	75	14	11						
5S/11W-14F ? S	--	7.9	426	48	7	31	3	0	207	34	17	0.0	0.4	0.04	--	240	149
4-15-64				2.40	0.58	1.35	0.08	3.39	3.39	0.71	0.48	0.0	0.4	0.04	--	240	149
				54	13	31	2	74	74	16	10						

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Date sampled	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in					parts per million equivalents per million percent reactance value					Mineral constituents in parts per million					
					Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total Dissolved Solids TDS	Hardness Exp. 100°C Comp. 20-25°C		
5S/11W-16A 2 S 1-15-64		--	8.0	421	45	7	34	2	0	204	40	15	0.0	0.6	0.02	--	250	147		
					2.25	0.58	1.48	0.05	3	3.34	0.83	0.42								
5S/11W-16B 1 S 10- 2-63		--	7.8	446	--	--	--	--	--	214	--	14	--	--	--	--	--	--		
					--	--	--	--	--	3.51	0.39									
5S/11W-17H 2 S 6-11-64		--	7.9	435	48	12	33	3	0	215	40	16	0.0	0.6	0.06	22	750	170		
					2.40	0.99	1.43	0.08	3	3.52	0.83	0.45								
5S/11W-18N 3 S 10-18-63		62	7.7	33000	1032	1058	8650	240	0	271	2464	16810	0.0	0.2	3.50	11	36472	6931		
					51.50	87.01	376.10	6.14	4.44	51.30	474.04									
2-20-64		63	7.5	34000	1038	1099	9400	240	0	305	2201	17910	0.0	0.1	1.67	10	34840	7115		
					51.80	90.38	408.71	6.14	5.00	45.82	505.06									
5S/11W-18N 4 S 2-20-64		63	7.7	19500	998	430	4400	55	0	99	1062	8830	0.0	0.1	0.85	10	17460	4261		
					49.80	35.36	191.31	1.41	1.62	22.11	249.01									
5S/11W-18N 5 S 10-18-63		62	7.4	17000	649	435	3600	103	0	250	1061	7180	0.0	0.2	1.70	15	15562	3411		
					32.39	35.77	156.53	2.63	4.10	22.09	202.48									
2-20-64		--	7.5	20000	794	559	4968	110	0	266	1371	9500	0.0	0.1	1.10	11	18700	4288		
					39.62	45.97	216.01	2.81	4.36	28.54	267.90									
					13	15	71	1	1	1	9	89								

LOWER SANTA ANA R. HYDRO SUBUNIT Y01AO
EAST COASTAL PLAIN HYDRO SUBAREA Y01A1
SANTA ANA RIVER HYDRO UNIT
Y0100

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million							Mineral constituents in parts per million							
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total hardness % CaCO ₃		
LOWER SANTA ANA R. HYDRO SUBUNIT Y01A0														Y0100				
FAST COASTAL PLAIN HYDRO SUBAREA Y01A1														Y0100				
5S/11W-18N 6 S 12-12-63	68	8.0	5400	190 9.48 15	78 6.41 10	1045 45.64 74	11 0.28	0	123 2.02 3	254 5.29 8	1968 55.50 88	0.0	0.1	0.48 11	1840 3618	795		
2-20-64	67	8.2	5200	206 10.28 16	64 5.26 8	1075 46.74 75	13 0.33 1	0	171 2.80 5	248 5.16 8	1897 53.50 87	0.0	0.1	0.38 10	3830 778	778		
5S/11W-18N 7 S 10-18-63	68	8.3	370	16 0.80 21	2 0.16 4	63 2.74 73	2 0.05 1	3	149 2.44 67	27 0.56 15	20 0.56 15	0.0	0.2	0.13 17	246 219	48		
2-20-64	70	8.2	310	12 0.60 16	2 0.16 4	65 2.83 78	2 0.05 1	0	179 2.93 82	5 0.10 3	19 0.54 15	0.0	0.1	0.15 9	250 202	38		
5S/11W-19B 2 S 4-17-64	--	8.2	570	55 2.74 49	9 0.74 13	47 2.04 36	3 0.68 1	0	156 2.56 46	37 0.77 14	77 2.17 59	1.0 0.02	0.6	0.05 --	301 306	174		
5S/11W-19B 3 S 11- 1-63	66	8.1	620	47 2.35 35	22 1.81 27	57 2.48 37	4 0.10 1	0	215 3.52 53	17 0.77 12	84 2.37 56	0.0	0.4	0.15 18	378 375	208		
4-17-64	68	8.1	721	73 3.64 52	10 0.82 12	55 2.39 34	4 0.10 1	0	194 3.18 45	42 0.87 12	106 2.99 42	1.5 0.07	0.6	0.05 --	430 387	223		
5S/11W-19B 4 S 4-17-64	--	8.2	606	53 2.64 46	9 0.74 13	51 2.22 39	3 0.08 1	0	207 3.39 61	40 0.83 15	48 1.35 24	0.5 0.01	0.7	0.09 --	292 307	169		

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent reactance value				Mineral constituents in parts per million						
				Calcium Co	Magne- sium Mg	Sodium No	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fluo- ride F	Boron B	Sili- ca SiO ₂	Total Exp. 105°C Computed	Total Hardness as CaCO ₃	
LOWER SANTA ANA R. HYDRO SUBUNIT Y01A0																		
EAST COASTAL PLAIN HYDRO SUBAREA Y01A1																		
SANTA ANA RIVER HYDRO UNIT																		
YU100																		
5S/11W-19B 5 S 4-16-64	68	8.0	410	20 1.00	1 0.08	69 3.00	1 0.03	1	0	144 2.36	34 0.71	35 0.99	1.5 0.02	0.4	0.06	--	235 233	54
5S/11W-19B 6 S 4-16-64	--	8.8	328	24 0.35	2 0	73 69	1 0.03	1	12 0.40	140 2.29	8 0.17	20 0.56	2.0 0.03	0.5	0.08	--	199 188	18
5S/11W-19B 7 S 5-13-64	65	7.6	2900	10 1186	17 806	89 6.00	1 0.43	0	0	183 3.00	5 1919	16 12410	0.0 0.0	0.2	0.65	--	26040 62779	2779
5S/11W-19B 8 S 9-8-64	--	8.0	650	15 32	17 24	67 69	0.43	4	0	212 3.47	1 49	74 2.09	0.0 0.0	0.4	0.11	--	370 357	179
5S/11W-19B 9 S 9-8-64	--	8.0	850	24 2.45	30 2.06	45 4.13	0.10	4	0	53 3.62	16 1.29	32 4.03	0.0 0.0	0.4	0.04	--	552 487	226
5S/11W-19B10 S 8-3-64	--	7.9	1300	28 58	24 84	47 73	0.10	1	0	40 202	14 68	45 305	0.0 0.0	0.2	0.04	--	732 692	490
5S/11W-19B11 S 8-3-64	--	8.0	6000	22 34.78	53 10.77	24 16.74	0.28	1	0	25 2.77	11 2.83	65 57.70	0.0 0.0	0.1	0.35	--	4282 3489	2279
5S/11W-20E 4 S 7-29-64	--	8.2	2300	12 64	50 167	38 240	0.08	3	0	33 5.42	22 8.88	46 12.30	0.0 0.0	0.1	0.22	--	1682 1458	847

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				million per million				Mineral constituents in parts per million			
				Calcium	Magne- sium	Sodium	Potas- sium	Carbon- ate	Bicar- bonate	Sulfate	Chlo- ride	Ni- trate	Fluo- ride	Bor- on	Sili- ca	I.D.S. Evap. 180°C	Total hardness at 105°C	CaCO ₃	
Date sampled				Co	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SO ₂				
SANTA ANA RIVER HYDRO UNIT Y0100																			
LOWER SANTA ANA R. HYDRO SUBUNIT Y01A0																			
FAST COASTAL PLAIN HYDRO SUBAREA Y01A1																			
5S/11W-20E 5 5 7-29-64	--	8.1	671	25 1.25 18	45 3.70 54	42 1.83 27	3 0.08 1	0	0 4.28 64	63 1.31 19	40 1.13 17	0.0	0.2	0.07	--	376	248		
5S/11W-20E 6 5 7-28-64	--	8.2	460	51 2.54 51	9 0.74 15	38 1.65 33	3 0.08 2	0	0 3.64 75	41 0.85 17	13 0.37 8	0.0	0.6	0.50	--	266	164		
5S/11W-20G 1 5 1-7-64	--	8.3	420	46 2.30 47	13 1.07 22	32 1.43 29	3 0.08 2	1 0.03 1	1 3.57 76	36 0.75 16	13 0.37 8	0.0	0.2	0.08	14	262	169		
5S/11W-20G 5 5 1-7-64	--	8.0	410	37 1.85 42	12 0.99 22	35 1.52 34	2 0.05 1	0	0 3.34 75	36 0.75 17	13 0.37 8	0.0	0.4	0.08	14	292	142		
5S/11W-20G 7 5 1-7-64	--	7.9	440	49 2.45 51	10 0.82 17	33 1.43 30	3 0.08 2	0	0 3.51 75	36 0.75 16	14 0.39 8	0.0	0.2	0.08	15	244	164		
5S/11W-20J 3 5 7-20-64	--	8.0	420	51 2.54 56	5 0.41 9	36 1.57 34	2 0.05 1	0	0 3.20 69	44 0.92 20	18 0.51 11	0.0	0.2	0.07	--	240	148		
5S/11W-20J 4 5 6-19-64	--	8.3	480	43 2.15 42	12 0.99 9	45 1.96 38	2 0.05 1	0	0 3.18 57	49 1.02 19	22 0.62 12	0.0	0.4	0.10	--	300	157		
5S/11W-20J 6 5 7-23-64	--	8.1	420	53 2.64 57	3 0.25 5	39 1.70 36	3 0.08 2	0	0 3.28 72	38 0.79 11	17 0.48 11	0.0	0.4	0.07	--	240	145		

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in				parts per million equivalents per million				Mineral constituents in					
				Calcium C.C.	Magne- sium M.G.	Sodium No.	Potas- sium K.	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Flu- oride F	Bor- on B	SiO ₂	Ex- posed Evap IOSEC Com- puted	Total Hardness GAL. 3
LOWER SANTA ANA R. HYDRO SUBUNIT Y01A0																	
EAST COASTAL PLAIN HYDRO SUBAREA Y01A1																	
SANTA ANA RIVER HYDRO UNIT																	
Y0100																	
5S/11W-20K 2 S 1-8-64	--	8.1	2275	136 6.79 25	137 11.27 42	197 8.57 32	6 0.15 1	0	395 6.47 24	243 5.06 19	518 14.61 55	19.0 0.31 1	0.2	0.24	21	1688 1477	904
7-20-64	--	8.0	2300	218 10.88 43	92 7.57 30	157 6.83 27	5 0.13 1	0	336 5.51 22	213 4.43 18	523 14.75 59	14.0 0.23 1	0.1	0.24	--	1614 1388	923
5S/11W-20K 3 S 1-8-64	--	8.2	395	35 1.75 39	15 1.23 27	34 1.48 33	2 0.05 1	0	198 3.25 73	40 0.83 19	13 0.37 8	0.0 0.0 0	0.4	0.05	13	252 750	149
7-20-64	--	7.8	440	48 2.40 50	9 0.74 15	36 1.57 33	3 0.08 2	0	207 3.39 72	43 0.90 19	15 0.42 9	0.0 0.0 0	0.2	0.10	--	248 256	157
5S/11W-20K 5 S 7-20-64	--	7.7	450	50 2.50 57	8 0.66 14	36 1.57 33	3 0.08 2	0	208 3.41 72	34 0.71 15	21 0.59 13	0.0 0.0 0	0.4	0.07	--	246 255	158
5S/11W-20K 9 S 1-8-64	--	8.2	390	38 1.90 43	11 0.90 20	36 1.57 36	2 0.05 1	0	195 3.20 72	42 0.87 20	13 0.37 8	0.0 0.0 0	0.6	0.08	14	234 252	140
7-20-64	--	7.7	430	35 1.75 39	13 1.07 24	37 1.61 36	2 0.05 1	0	202 3.31 73	40 0.83 18	15 0.42 9	0.0 0.0 0	0.2	0.07	--	240 242	141
5S/11W-20M 2 S 4-27-64	65	7.0	21000	1544 77.05 27	469 38.57 13	3900 169.57 59	30 0.77 1	0	228 3.74 1	1063 22.13 8	9130 257.47 91	0.0 0.0 0	0.1	0.88	13	17610 16262	5786

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos of 25°C)	Mineral constituents in parts per million				parts per million equivalents per million percent reactance value				Mineral constituents in parts per million						
				Calcium Mg	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fluo- ride F	Boron B	Sili- co SiO ₂	I.D.S. Evap 100°C Evap 105°C Compld Calc 3	Total hardness Calc 3	
SANTA ANA RIVER HYDRO UNIT YU100																		
LOWER SANTA ANA R. HYDRO SUBUNIT Y01A0																		
EAST COASTAL PLAIN HYDRO SUBAREA Y01A1																		
55/11W-20M 3 S 10-11-63	66	7.9	760	69 3.44 45	13 1.07 14	69 3.00 39	0.10 0.10 1	4 1	0	2.85 37	1.08 14	52 3.84 49	136 3.84 49	0.0	0.05	14	508 443	226
4-27-64	66	8.0	650	59 2.94 42	17 1.40 20	60 2.61 37	3 0.08 1	0	184 3.02 44	0.87 13 44	42 3.05 44	108 3.05 44	0.0	0.16	17	376 397	217	
55/11W-20M 4 S 10-11-63	68	8.3	325	23 1.15 32	1 0.08 2	52 2.26 64	2 0.05 1	5 0.17 5	135 2.21 63	31 0.65 19	17 0.48 14	0.0	0.05	12	222 210	62		
4-27-64	69	8.6	330	23 1.15 32	2 0.16 4	52 2.26 62	2 0.05 1	5 0.17 5	148 2.43 66	32 0.67 18	14 0.39 11	0.0	0.1	13	208 216	66		
55/11W-20M 6 S 7-16-64	--	7.2	27000	2340 116.77 33	664 54.61 16	4100 178.27 51	40 1.02	0	230 3.77 1	1013 21.09 6	11330 319.51 93	0.0	0.36	--	23140 19600	8576		
55/11W-20M 7 S 7-16-64	--	8.1	530	26 1.30 24	26 2.14 40	42 1.83 34	3 0.08 1	0	209 3.43 65	34 0.71 13	40 1.13 21	0.0	0.6	--	286 274	172		
55/11W-20M 8 S 7-16-64	--	7.3	36000	4541 226.60 41	1138 93.59 17	5350 232.62 42	35 0.89	0	69 1.13 4	1047 21.80 4	18950 534.39 96	0.0	0.47	--	31740 31096	6084		
55/11W-20N 1 S 7-14-64	--	7.5	37000	810 40.42 8	987 81.17 16	8700 378.28 75	110 2.81 1	0	244 4.00 1	2267 47.20 10	15710 443.02 90	0.0	0.2	--	29200 28708	6084		

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in							parts per million				Mineral constituents in parts per million			
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Silica SiO ₂	Sulfide S	Iron Fe	Copper Cu	Zinc Zn
SANTA ANA RIVER HYDRO UNIT Y0100																		
LOWER SANTA ANA R. HYDRO SUBUNIT Y01A0																		
EAST COASTAL PLAIN HYDRO SUBAREA Y01A1																		
5S/11W-20N 2 S 7-14-64	--	7.2	5600	677 33.78 56	148 12.17 20	320 13.91 23	12 0.31 1	0	0	142 2.33 4	163 3.39 6	1911 53.89 90	0.0	0.2	0.17	--	4250 3301	2299
5S/11W-20N 3 S 7-14-64	--	7.4	30000	1186 59.18 15	608 295.66 12	6800 295.66 73	20 0.51	0	0	326 5.34 1	1667 34.71 9	12730 358.99 90	0.0	0.2	2.24	--	24000 23174	5463
5S/11W-20Q 3 S 1- 8-64	--	8.1	1300	92 4.59 34	53 4.36 32	105 4.57 33	5 0.13 1	0	0	215 3.52 25	62 1.29 9	319 9.00 65	0.0	0.2	0.10	16	1094 758	448
7-20-64	--	7.8	1070	122 6.09 52	22 1.81 16	83 3.61 31	4 0.10 1	0	0	201 3.29 28	55 1.15 10	254 7.16 62	0.0	0.2	0.10	--	790 639	395
5S/11W-20Q 4 S 1- 8-64	--	8.0	1500	142 7.09 43	67 5.51 33	87 3.78 23	5 0.13 1	0	0	180 2.95 18	74 1.54 8	429 12.10 73	0.0	0.1	0.19	15	1380 908	631
7-20-64	--	7.7	1750	189 9.43 52	52 4.28 24	95 4.13 23	5 0.13 1	0	0	188 3.08 17	66 1.37 8	475 13.40 75	0.0	0.2	0.12	--	1296 975	686
5S/11W-20Q 5 S 1- 8-64	--	7.4	10500	1535 76.60 61	243 19.98 16	670 29.13 23	17 0.43	0	0	100 1.64 1	534 11.12 9	3998 112.74 90	0.0	0.1	0.05	11	8380 7057	4833
7-20-64	--	7.9	11000	1445 72.11 56	297 23.60 18	750 32.61 25	18 0.46	0	0	159 2.61 2	526 10.95 8	4131 116.49 90	0.0	0.1	0.21	--	7700 7235	4789

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in°F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million										Mineral constituents in parts per million				
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fluo- ride F	Boron B	Sil- ico SiO ₂	I.D.S. Extrapolated as Computed	Total Hardness as CaCO ₃	
SANTA ANA RIVER HYDRO UNIT Y0100																		
LOWER SANTA ANA R. HYDRO SUBUNIT Y01A0																		
EAST COASTAL PLAIN HYDRO SUBAREA Y01A1																		
5S/11W-200 6 S 1- 8-64	--	8.1	415	47 2.35 47	10 0.82 17	39 1.70 34	0.08 0	3 2	0	201 3.29 69	34 0.71 15	27 0.76 16	0.0	0.2	0.08	13	264 272	159
5S/11W-20015 S 1- 7-64	--	8.0	420	37 1.85 39	16 1.32 28	34 1.48 31	0.08 0	3 2	0	216 3.54 76	37 0.77 17	12 0.34 7	0.0	0.6	0.11	11	256 257	159
5S/11W-200 7 S 1- 8-64	--	8.0	420	44 2.20 49	8 0.66 15	37 1.61 36	2 0.05 1	2 1	0	204 3.34 75	37 0.77 17	13 0.37 8	0.0	0.2	0.14	16	254 258	143
7-23-64	--	8.2	430	47 2.35 48	10 0.82 17	37 1.61 33	3 0.08 2	3 2	0	201 3.29 71	36 0.75 16	21 0.59 13	0.0	0.2	0.05	--	262 253	159
5S/11W-200 8 S 1- 7-64	--	8.1	420	39 1.95 43	12 0.99 22	35 1.52 34	2 0.05 1	2 1	0	205 3.36 76	32 0.67 15	14 0.39 9	0.0	0.4	0.11	14	260 249	147
7-23-64	--	8.1	450	49 2.45 50	9 0.74 15	38 1.65 34	2 0.05 1	2 1	0	218 3.57 74	38 0.79 16	16 0.45 9	0.0	0.2	0.10	--	254 259	160
5S/11W-200 9 S 1- 7-64	--	8.2	400	45 2.25 50	8 0.66 15	35 1.52 34	2 0.05 1	2 1	0	203 3.33 75	38 0.79 18	12 0.34 8	0.0	0.4	0.05	16	260 256	146
5S/11W-20011 S 1- 8-64	--	8.1	550	55 2.74 46	17 1.40 23	41 1.78 30	3 0.08 1	3 1	0	216 3.54 59	43 0.90 15	56 1.58 26	0.0	0.2	0.07	16	358 337	207

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Date sampled	Temp when sampled in °F	pH	Specific conductance (micro-mhos of 25°C)	Mineral constituents in parts per million										Mineral constituents in parts per million				
					Calcium Co.	Magnesium Mg.	Sodium Na.	Potassium K.	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl.	Nitrate NO ₃	Fluoride F.	Baryte Ba.	Silica SiO ₂	TDS Expressed as Evap. Residue Computed	Total Hardness Co. & S.	
SANTA ANA RIVER HYDRO UNIT Y0100																			
LOWER SANTA ANA R. HYDRO SUBUNIT Y01A0																			
EAST COASTAL PLAIN HYDRO SUBAREA Y01A1																			
5S/11W-20011 S 7-20-64		--	8.2	605	47 2.35	27 2.22	43 1.87	3 0.08	0	212 3.47	46 0.96	74 2.09	0.0	0.2	0.10	--	392	229	
5S/11W-20012 S 1-8-64		--	8.0	410	36 1.85	34 1.15	29 1.61	1 0.08	3 3	53 2.08	15 0.75	32 17	0.0	0.2	0.11	14	345	150	
7-20-64		--	7.5	525	39 54	25 17	34 43	2 3	0	73 2.12	16 0.46	10 44	0.0	0.2	0.10	--	261	184	
5S/11W-20013 S 1-7-64		--	7.8	815	48 55	18 44	33 54	1 4	0	61 1.96	17 0.49	22 160	0.0	0.4	0.03	16	307	548	
7-23-64		--	7.4	760	31 86	41 15	27 52	1 3	0	37 1.99	12 0.43	52 130	0.0	0.2	0.09	--	479	276	
5S/11W-20014 S 1-8-64		--	8.2	390	55 4.29	16 1.23	29 2.26	1 0.08	0	42 3.26	11 0.20	47 3.67	0.0	0.4	0.05	13	427	252	
7-20-64		--	8.3	430	51 38	13 7	35 36	1 2	0	74 2.04	18 0.38	8 13	0.0	0.4	0.10	--	256	144	
5S/11W-20R 2 S 6-19-64		--	7.8	500	41 2.25	23 1.32	34 1.65	2 0.05	3	70 3.51	18 0.77	9 32	0.0	0.4	0.10	--	266	179	
					43	25	31	1	1	68	15	17					276		

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million				Mineral constituents in parts per million					
				Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total dissolved solids Computed	Total hardness CaCO ₃ Equivalent
LOWER SANTA ANA R. HYDRO SUBUNIT YO1AO																	
EAST COASTAL PLAIN HYDRO SUBAREA YO1A1																	
SANTA ANA RIVER HYDRO UNIT YO100																	
5S/11W-20R 4 S 1- 8-64	--	8.0	390	2.15 46	11 0.90 19	36 1.57 33	0.08 2	3	0	204 3.34 71	40 0.83 18	18 0.51 11	0.0	0.2	0.08	13	268 153
5S/11W-20R 5 S 1- 8-64	--	7.9	400	39 1.95 44	11 0.90 20	35 1.52 34	2 0.05 1	0	194 3.18 72	40 0.83 19	14 0.39 9	0.0	0.2	0.17	15	228 143	
5S/11W-20R 8 S 1- 9-64	--	8.1	410	42 2.10 44	13 1.07 22	36 1.57 33	3 0.08 2	0	204 3.34 70	41 0.85 18	21 0.59 12	0.0	0.2	0.11	14	278 159	
5S/11W-20R 9 S 1- 9-64	--	8.1	460	44 2.20 45	13 1.07 22	36 1.57 32	3 0.08 2	0	212 3.47 72	38 0.79 16	21 0.59 17	0.0	0.2	0.05	16	256 164	
5S/11W-20R10 S 1- 9-64	--	7.8	380	42 2.10 46	10 0.82 18	36 1.57 35	2 0.05 1	0	201 3.29 75	31 0.65 15	16 0.45 10	0.0	0.1	0.08	13	250 146	
5S/11W-21A 7 S 7-22-64	--	8.1	420	52 2.59 58	4 0.33 7	34 1.48 33	2 0.05 1	0	201 3.29 72	35 0.73 16	19 0.54 12	0.0	0.2	0.08	--	256 146	
5S/11W-21L 2 S 1- 9-64	--	8.2	420	48 2.40 49	12 0.99 20	34 1.48 30	2 0.05 1	0	207 3.39 70	42 0.87 18	21 0.59 12	0.0	0.2	0.13	16	282 170	
7-22-64	--	8.3	620	69 3.44 53	15 1.23 19	40 1.74 27	3 0.08 1	3	211 3.46 55	83 1.73 27	36 1.02 16	2.0 0.03	0.2	0.10	--	372 234 355	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million										Mineral constituents in parts per million					
				equivalents per percent					reactance value					per million					
Date sampled	Mineral constituents in parts per million										Mineral constituents in parts per million								
	Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	Total Hardness as CaCO ₃	Iron	Copper	Zinc	Lead	Other	
SANTA ANA RIVER HYDRO UNIT Y0100																			
LOWER SANTA ANA R. HYDRO SUBUNIT Y01A0																			
EAST COASTAL PLAIN HYDRO SUBAREA Y01A1																			
5S/11W-21L 3 S 1- 9-64	450	8.1	450	53 2.64 52	11 0.90 18	34 1.48 29	2 0.05	0	205 3.36 67	45 0.94 19	23 0.65 13	2.0 0.03 1	0.2	0.07	17	298	177		
7-??-64	490	7.9	490	46 2.30 44	16 1.32 25	35 1.52 29	3	0	206 3.38 65	49 1.02 20	27 0.76 15	4.0 0.06 1	0.2	0.10	--	294	181		
5S/11W-21L 4 S 1- 9-64	430	8.0	430	47 2.35 50	10 0.82 18	33 1.43 31	3	0	208 3.41 73	41 0.85 18	14 0.39 8	0.0	0.4	0.07	16	262	159		
5S/11W-21L 5 S 1- 9-64	430	8.2	430	38 1.90 40	14 1.15 24	37 1.61 34	2	0	201 3.29 71	40 0.83 18	17 0.48 10	0.8 0.01	0.4	0.05	16	264	153		
7-22-64	430	8.2	430	40 2.00 43	11 0.90 19	38 1.65 35	4	0	189 3.10 68	38 0.79 17	23 0.65 14	0.0	0.2	0.08	--	246	145		
5S/11W-21L 6 S 1- 9-64	385	8.1	385	42 2.10 47	19 0.82 19	33 1.43 32	3	0	198 3.25 75	32 0.67 16	14 0.39 9	0.0	0.4	0.08	9	240	146		
7-22-64	460	7.8	460	54 2.69 52	11 0.90 17	34 1.48 29	3	0	215 3.52 70	34 0.71 14	28 0.79 16	0.0	0.4	0.08	--	274	180		
5S/11W-21W 3 S 6-19-64	380	7.9	380	25 1.25 33	2 0.16 4	54 2.35 62	1	0	167 2.74 69	38 0.79 20	15 0.42 11	0.0	0.2	0.08	--	224	71		

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million						parts per million equivalents per percent reactance value					Mineral constituents in parts per million			
				Calcium Mg	Magne- sium	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Flo- ride F	Boron B	Sul- fo- ur SO ₂	IDS- Exp-105°C Computed	Total hardness as CaCO ₃	
SANTA ANA RIVER HYDRO UNIT YU100																		
LOWER SANTA ANA R. HYDRO SURUNIT Y01A0																		
EAST COASTAL PLAIN HYDRO SUBAREA Y01A1																		
5S/11W-21M 4 S 1-9-64	--	8.1	530	59 2.94 48	16 1.32 22	40 1.74 29	0.08	3 1	0	205 3.36 57	78 1.62 27	34 0.96 16	0.0	0.2	0.07	16	372 347	213
5S/11W-21M 6 S 7-22-64	--	8.3	450	50 2.50 52	9 0.74 15	35 1.52 31	0.08	3 2	3 0.10 2	205 3.36 70	44 0.92 19	15 0.42 9	0.0	0.2	0.10	--	252 260	162
5S/11W-21M 7 S 7-21-64	--	8.4	600	69 3.44 53	13 1.07 16	45 1.96 30	0.08	3 1	4 0.13 2	203 3.33 53	99 2.06 32	29 0.82 13	0.0	0.2	0.09	--	372 362	226
7-22-64	--	7.8	530	43 2.15 38	22 1.81 32	38 1.65 29	0.08	3 1	0	205 3.36 60	64 1.33 24	32 0.90 16	0.0	0.2	0.08	--	334 303	198
5S/11W-21M 1 S 12-7-63	--	8.2	340	19 0.95 26	2 0.16 4	57 2.48 69	0.03	1 1	0	154 2.52 68	40 0.83 22	12 0.34 9	0	0.6	0.29	12	204 220	56
7-23-64	--	8.1	375	28 1.40 31	1 0.08 2	69 3.00 67	0.03	1 1	0	150 2.46 54	29 0.60 13	53 1.49 33	0.0	0.2	0.07	--	240 255	74
5S/11W-21M 2 S 1-9-64	--	8.2	500	45 2.25 38	19 1.56 26	48 2.09 35	0.03	1 1	0	201 3.29 54	114 2.37 39	17 0.48 8	0.0	0.2	0.11	12	358 355	191
6-19-64	--	8.2	580	49 2.45 38	21 1.73 27	50 2.17 34	0.05	2 1	0	200 3.28 52	117 2.44 38	22 0.62 10	0.0	0.2	0.08	--	390 360	209

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				parts per million reoactance value				Mineral constituents in parts per million			
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fu- sile F	Bicarb- o- nate SO ₂	Sul- fate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fu- sile F	Bicarb- o- nate SO ₂
LOWER SANTA ANA R. HYDRO SUBUNIT Y01A0																			
EAST COASTAL PLAIN HYDRO SUBAREA Y01A1																			
SANTA ANA RIVER HYDRO UNIT																			
Y0100																			
5S/11W-21N 3 S 1-8-64	--	8.1	380	1.35 33	0.08 2	2.65 64	0.05 1	61 1	2 0	0 0	2.98 73	0.71 17	14 10	0.0 0.0	0.2 0.2	0.08 0.7	12 --	232 241	72 76
7-20-64	--	8.1	400	1.35 33	0.16 4	2.61 63	0.03 1	60 1	1 0	0 0	3.03 71	0.85 20	13 9	0.0 0.0	0.2 0.2	0.7 0.08	-- --	232 235	76 76
5S/11W-21N 4 S 7-25-64	--	7.7	640	3.44 48	1.81 25	1.78 25	0.08 3	41 3	3 0	0 0	2.40 3.93	1.19 2.48	29 82	0.0 0.0	0.2 0.2	0.08 0.08	-- --	424 401	263 263
5S/11W-21N 5 S 1-8-64	--	8.2	640	2.64 38	2.47 35	1.83 26	0.08 1	42 1	3 0	0 0	3.59 50	3.02 42	21 8	0.0 0.0	0.2 0.2	0.07 0.12	16 --	440 422	256 236
7-21-64	--	8.2	590	2.99 45	1.73 26	1.87 28	0.08 1	43 3	3 0	0 0	2.15 3.52	1.04 2.17	29 13	0.0 0.0	0.2 0.2	0.12 0.12	-- --	366 366	214 214
5S/11W-21N 6 S 1-9-64	--	8.1	590	3.29 54	0.99 16	1.78 29	0.08 1	41 3	3 0	0 0	3.44 58	1.75 29	28 13	0.0 0.0	0.4 0.2	0.12 0.12	11 --	358 349	214 233
7-22-64	--	8.2	625	7.2 3.59	1.5 1.07	3.9 1.70	0.08 0.08	37 17	3 1	0 0	2.08 3.41	48 1.00	78 270	0.0 0.0	0.2 0.2	0.12 0.12	-- --	372 356	233 196
5S/11W-21N 7 S 1-8-64	--	7.8	500	2.64 47	1.32 23	1.61 26	0.08 1	37 26	3 1	0 0	2.23 3.65	38 0.79	34 20	0.0 0.0	0.4 0.4	0.19 0.19	16 16	348 312	196 196

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Date sampled	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent reactance value				Mineral constituents in parts per million						
					Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	I.D.S. Exposed to hardness	Total hardness	
					Ca	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂	mg/l	mg/l	
SANTA ANA RIVER HYDRO UNIT Y0100																			
LOWER SANTA ANA R. HYDRO SUBUNIT Y01A0																			
EAST COASTAL PLAIN HYDRO SUBAREA Y01A1																			
55/11W-21N 7 S 7-20-64		--	8.1	545	53 2.64 45	17 1.40 24	39 1.70 29	0.08	3	0	212 3.47 60	54 1.12 19	41 1.16 20	0.0	0.2	0.10	--	314	202
55/11W-21N 8 S 1-9-64		--	8.2	630	62 3.09	33 2.71	45 1.96	3	0	226 3.70	138 2.87	38 1.07	38 1.07	0.0	0.2	0.11	13	502	290
7-22-64		--	8.2	720	83 4.14 50	74 1.97 24	47 2.04 25	4	0	232 3.80 47	161 3.35 12	36 1.02 12	36 1.02	0.0	0.2	0.05	--	496	306
55/11W-21P 5 S 1-9-64		--	8.2	570	52 2.59	22 1.81	39 1.70	3	0	218 3.57	63 1.73	33 0.93	33 0.93	4.3	0.2	0.07	16	388	220
55/11W-21Q 1 S 6-22-64		--	7.9	368	8 0.40 11	0 1.1 11	77 3.35 89	0	0	153 2.51 70	31 0.65 18	15 0.42 12	15 0.42	1.5	0.5	0.18	--	198	20
55/11W-21O 5 S 6-22-64		--	7.8	908	109 5.44 57	20 1.64 17	54 2.35 25	4	0	243 3.98 43	145 3.02 33	74 2.09 23	74 2.09	7.0	0.5	0.19	--	557	354
55/11W-22M 4 S 12-31-63		--	7.6	1320	166 8.28 48	55 4.52 26	95 4.13 24	6	0	249 4.08 24	576 11.99 70	37 1.04 6	37 1.04	0.0	0.1	0.25	11	1130	641
55/11W-22N 3 S 12-31-63		--	7.9	620	67 3.34 48	21 1.73 25	42 1.83 26	3	0	232 3.80 55	124 2.69 39	13 0.37 5	13 0.37	0.0	0.2	0.10	17	420	254

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million						Mineral constituents in parts per million							
				Calcium Mg	Magnesium Mg	Sodium No	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Barium B	Silica SiO ₂	I.D.S. Evap. 105°C as Computed	Total Hardness as CaCO ₃
LOWER SANTA ANA R. HYDRO SUBUNIT Y0100																	
EAST COASTAL PLAIN HYDRO SUBAREA Y01A1																	
5S/11W-22P 1 S 12-31-63	--	8.2	450	39 1.895 37	21 1.73 32	36 1.57 29	3 0.08 2	0	0 3.70 72	43 0.90 11	19 0.54 11	0.0	0.4	0.14	16	318 289	184
5S/11W-22Q 3 S 7-22-64	--	7.5	765	68 3.39 39	39 3.21 37	45 1.96 23	4 0.10 1	0	0 4.41 52	154 3.21 38	29 0.82 10	2.0 0.03	0.1	0.12	--	514 473	330
5S/11W-23F 1 S 2-19-64	--	7.8	461	54 2.69 55	9 0.74 15	31 1.35 28	3 0.08 2	0	0 3.51 72	39 0.81 17	20 0.56 11	1.2 0.02	0.6	0.10	--	274 263	172
5S/11W-23M 1 S 6-17-64	--	8.1	635	78 3.89 59	11 0.90 14	40 1.74 26	3 0.08 1	0	0 3.47 53	113 2.55 36	27 0.76 12	1.0 0.02	0.4	0.08	--	388 378	240
5S/11W-23R 1 S 6-17-64	--	8.2	500	52 2.59 52	11 0.90 18	33 1.43 29	3 0.08 2	0	0 3.72 73	41 0.85 17	17 0.48 9	1.0 0.02	0.6	0.05	--	260 270	175
5S/11W-25N 1 S 10- 2-63	75	7.9	549	76 3.79 66	4 0.33 6	35 1.52 27	3 0.08 1	--	0 3.64 64	57 1.19 21	27 0.76 13	4.0 0.06 1	0.6	0.07	18	334	206
6-17-64	68	7.9	550	61 3.04 54	11 0.90 16	36 1.57 28	5 0.08 1	0	0 3.70 65	58 1.21 21	26 0.73 13	3.0 0.05 1	0.4	0.08	--	318 310	197
5S/11W-25R 2 S 10- 2-63	77	7.7	678	--	--	--	--	--	0 3.78 4.56	--	30 0.85	--	--	--	--	--	--

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

Stote well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				parts per million reoactance value				Mineral constituents in parts per million			
				Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Bromine Br	Sulfide S O ₂	Total Dissolved Solids as CaCO ₃	Total Hardness as CaCO ₃		
SANTA ANA RIVER HYDRO UNIT																			
LOWER SANTA ANA R. HYDRO SUBUNIT Y010U																			
EAST COASTAL PLAIN HYDRO SUGAREA Y01A1																			
5S/11W-26E 5 5 6-19-64	--	7.7	368	14 0.70 19	0	70 3.04 81	0.03 1	0	163 2.67 71	30 0.62 16	16 0.45 12	2.2 0.04 1	0.5	0.18	200 214	--	35		
5S/11W-26L 3 5 1-10-64	--	8.5	376	22 1.10 29	0	61 2.65 70	0.03 1	12 0.40 10	158 2.59 68	27 0.56 15	10 0.28 7	0.0	--	--	265 211	--	55		
5S/11W-26M 7 5 10- 2-63	--	8.6	410	--	--	--	--	10 0.33	209 3.43	--	15 0.42	--	--	--	--	--	--		
1-27-64	--	7.8	398	6 0.30 7	1 0.08 2	86 3.74 90	0.03 1	0	218 3.57 82	11 0.23 5	12 0.51 12	1.2 0.02	0.7	0.21	263 232	--	19		
6-17-64	--	8.1	390	4 0.20 5	2 0.16 4	91 3.96 91	0.03 1	0	224 3.67 85	11 0.23 5	15 0.42 10	0.0	0.6	0.23	268 235	--	18		
8-19-64	--	7.5	409	9 0.45 11	0	86 3.74 89	0.03 1	0	215 3.52 84	7 0.15 4	18 0.51 12	0.0	0.6	0.20	256 228	--	23		
5S/11W-26M 8 5 10- 2-63	75	8.6	371	--	--	--	--	0.30	175 2.87	--	14 0.39	--	--	--	--	--	--		
4-15-64	--	7.7	357	9 0.45 13	0	70 3.04 86	0.03 1	0	186 3.05 80	18 0.37 10	14 0.39 10	0.0	0.5	0.11	218 204	--	23		

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million							Mineral constituents in parts per million						
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fluo- ride F	Boro- n B	Sili- co SiO ₂	I.D.S. Evap.100°C Evap.105°C Computer Calc.	Total hardness as CaCO ₃
SANTA ANA RIVER HYDRO UNIT Y0100																	
LOWER SANTA ANA R. HYDRO SUBUNIT Y01A																	
EAST COASTAL PLAIN HYDRO SUBAREA Y01A1																	
5S/11W-26M 6-17-64	76	8.1	370	6 0.30 7	2 0.16 4	84 3.65 88	1 0.03 1	0	184 3.02 73	30 0.62 15	17 0.48 12	1.0 0.02	0.6	0.10	--	228 232	23
5S/11W-26M 10-2-63	--	8.6	363	--	--	--	--	0.30	176 2.88	--	14 0.39	--	--	--	--	--	--
1-15-64	--	8.3	363	9 0.45 11	1 0.08 2	78 3.39 86	1 0.03 1	7 0.23 6	184 3.02 77	9 0.19 5	17 0.48 12	0.0	0.8	0.09	--	238 213	27
3-23-64	--	8.3	370	8 0.40 11	0	76 3.30 88	1 0.03 1	0	194 3.18 77	20 0.42 10	16 0.51 12	0.0	0.5	0.15	--	227 219	20
6-17-64	77	8.5	380	6 0.30 8	1 0.08 2	82 3.57 90	1 0.03 1	5 0.17 4	177 2.90 74	20 0.42 11	16 0.45 11	0.0	0.6	0.15	--	242 219	19
5S/11W-26M 5-17-64	--	8.5	380	4 0.20 5	1 0.08 2	81 3.52 92	1 0.03 1	3 0.10 3	178 2.92 77	20 0.42 11	13 0.37 10	0.0	0.6	0.15	--	244 211	14
5S/11W-27A 12-31-63	--	8.2	620	71 3.54 52	17 1.40 21	40 1.74 26	3 0.08 1	0	217 3.56 51	70 1.46 21	66 1.86 27	4.4 0.07 1	0.2	0.17	17	406 395	247
5S/11W-27B 12-31-63	--	8.2	730	93 4.64 51	29 2.38 76	44 1.91 21	4 0.10 1	0	254 4.16 45	200 4.16 45	27 0.76 8	7.5 0.12 1	0.4	0.17	18	564 548	351

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million reactance value				Mineral constituents in parts per million					
				Calcium Mg	Magnesium	Sodium No	Potassium	Carbonate	Bicarbonate	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	I.D.S. Evap. Residue as Compared	Hardness CaCl ₂
LOWER SANTA ANA R. HYDRO SUBUNIT Y01A0 Y0100																	
EAST COASTAL PLAIN HYDRO SUBAREA Y01A1																	
5S/11W-27C 4 S 1-10-64	68	8.0	710	79 3.94 47	29 2.38 28	47 2.04 24	4 0.10 1	4 0 0	232 3.03 45	198 4.12 49	20 0.56 7	0.0	0.1	0.17	1	544 492	316
5S/11W-27C 5 S 12-31-63	--	8.2	400	45 2.25 50	8 0.66 15	35 1.52 34	2 0.05 1	0 0 0	207 3.39 75	34 0.71 16	16 0.45 10	0.0	0.2	0.08	16	250 258	146
7-20-64	--	8.2	440	33 1.65	17 1.40	36 1.57	2 0.05	0 0	203 3.28	43 0.90	21 0.59	0.0	0.2	0.10	--	264 251	159
5S/11W-27F 4 S 12-31-63	--	8.1	610	63 3.14 43	27 2.22 30	43 1.87 26	3 0.08 1	0 0	220 3.61 51	120 2.50 36	27 0.76 11	10.0	0.6	0.14	12	454 414	268
7-22-64	--	8.2	620	95 4.74 49	32 2.63 27	52 2.26 23	4 0.10 1	0 0	234 3.84 40	182 3.77 40	25 0.71 7	76.0	0.4	0.10	--	600 582	369
5S/11W-27H 4 S 12-31-63	--	7.8	1360	133 6.64 44	40 3.29 22	119 5.17 34	6 0.15 1	0 0	171 2.80 18	214 4.46 29	287 8.09 52	11.0	0.2	0.61	18	968 913	497
6-17-64	--	8.0	1460	165 8.23 51	29 2.38 15	125 5.44 34	5 0.13 1	0 0	226 4.20 26	192 4.00 29	270 7.61 48	10.0	0.4	0.49	--	1060 923	501
5S/11W-27K 2 S 1-7-64	64	8.1	350	7 3.35 9	1 0.08 2	82 3.57 89	1 0.03 1	0 0	187 3.10 30	12 0.25 6	17 0.48 12	1.8	0.6	0.28	13	242 229	22

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million				Mineral constituents in parts per million						
				Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Bromine Br	Sulfate SO ₄	Iron Fe	Copper Cu	Zinc Zn
LOWER SANTA ANA R. HYDRO SUBUNIT YO1A0																		
EAST COASTAL PLAIN HYDRO SUBAREA YO1A1																		
SANTA ANA RIVER HYDRO UNIT																		
YO100																		
55/11W-27B 3 S 6-17-64	--	7.8	395	26 1.30 31	2 0.16 4	63 2.74 64	0 0.05 1	2 0 4	0 0 0	211 3.46 82	0 0 0	3 0.06 1	24 0.68 16	0.0 0.0 0.0	0.4 0.10 --	--	228 224	73
55/11W-28A 2 S 12-31-63	--	8.0	790	104 5.19 55	24 1.97 21	50 2.17 23	0.10 0.10 1	4 0 1	0 0 0	269 4.41 46	0 0 0	200 4.16 44	34 0.76 10	0.0 0.0 0.0	0.2 0.14 16	16	596 565	356
55/11W-28C 3 S 1-10-64	--	8.1	530	52 2.59 47	6 0.49 9	54 2.35 43	2 0.05 1	2 0 1	0 0 0	228 3.74 68	0 0 0	64 1.33 24	14 0.39 7	0.8 0.01 0.0	0.1 0.07 --	14	320 319	154
7-23-64	--	8.2	494	48 2.40 46	11 0.90 17	44 1.91 36	2 0.05 1	2 0 1	0 0 0	193 3.16 61	0 0 0	77 1.60 31	15 0.42 8	1.8 0.03 1	0.06 0.06 --	--	297 294	165
55/11W-28C 7 S 12-31-63	--	8.0	1300	163 8.13 58	26 2.14 15	85 3.70 26	4 0.10 1	4 0 1	0 0 0	204 3.34 23	0 0 0	201 4.18 29	240 6.77 47	0.0 0.0 0.0	0.1 0.16 14	14	932 834	514
55/11W-28D 4 S 7-23-64	--	8.0	690	83 4.14 55	13 1.48 20	42 1.83 24	3 0.08 1	3 0 1	0 0 0	212 3.47 46	0 0 0	171 3.56 47	18 0.51 7	0.0 0.0 0.0	0.5 0.06 --	--	458 440	281
55/11W-28D 3 S 1-10-64	--	7.7	750	87 4.34 54	19 1.56 19	48 2.09 26	3 0.08 1	3 0 1	0 0 0	215 3.52 45	0 0 0	176 3.66 46	25 0.71 9	0.0 0.0 0.0	0.2 0.18 15	15	490 479	295
55/11W-28H 2 S 10-3-63	--	8.4	368	9 0.45 13	1 0.06 2	70 3.04 84	1 0.03 1	2 0 5	0 0.17 5	174 2.85 78	0 0 0	12 0.25 7	14 0.39 11	0.0 0.0 0.0	0.7 0.08 13	13	244 211	27

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million										Mineral constituents in parts per million				
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fluo- ride F	Boron B	Sili- co SiO ₂	ID ₅ Evap. BOC	Total Hardness as CaCO ₃	
LOWER SANTA ANA R. HYDRO SUBUNIT Y0100																		
EAST COASTAL PLAIN HYDRO SUBAREA Y01A1																		
5S/11W-28L 1 S 12-31-63	--	7.7	660	38 1,970 28	4 0.33 5	103 4,448 66	0.05 1	2	0	162 2,866 38	35 0.73 11	125 3,255 51	0.0	0.4	0.15	11	596 398	
5S/11W-28M 2 S 10-10-63	67	8.2	540	22 1,110 20	8 0.66 12	85 3,700 67	0.05 1	2	0	168 2,875 50	22 0.46 8	83 2,340 42	0.0	0.2	0.09	11	312 316	
4-27-64	--	8.2	610	35 1,750 29	5 0.41 7	89 3,887 64	0.05 1	2	0	174 2,885 45	18 0.37 6	106 3,055 49	0.0	0.1	0.16	12	346 355	
5S/11W-29A10 S 11-21-63	--	8.0	420	39 1,975 44	7 0.58 13	43 1,687 42	0.05 1	2	0	181 2,937 69	30 0.62 14	25 0.71 17	0.0	0.4	0.15	14	250 249	
7-22-64	--	8.4	420	42 2,110 47	6 0.49 11	42 1,833 41	0.05 1	2	0	175 2,887 64	35 0.69 16	26 0.79 18	0.0	0.2	0.08	--	254 242	
5S/11W-29B11 S 1-7-64	--	8.2	1010	72 3,559 33	41 3.37 31	83 3,661 53	0.23 2	0	0	149 2,444 23	49 1.02 9	260 7,333 56	0.0	0.2	0.11	13	700 601	
7-20-64	--	7.8	650	89 4,444 49	14 1.15 13	78 3,339 37	0.08 1	0	0	153 2,851 28	34 0.71 8	203 5,720 64	0.0	0.2	0.10	--	582 497	
5S/11W-29B12 S 7-22-64	--	7.5	4500	529 26,440 56	10 8.22 17	189 12,061 27	0.26 1	0	0	189 3,810 7	106 2.21 5	1484 41,850 89	0.0	0.1	0.25	--	3200 2612	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million						Mineral constituents in parts per million					Mineral constituents in parts per million			
				Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total Dissolved Solids (TDS) mg/l	Total Dissolved Solids (TDS) mg/l	Total Dissolved Solids (TDS) mg/l
SANTA ANA RIVER HYDRO UNIT Y0100																		
LOWER SANTA ANA R. HYDRO SUBUNIT Y01A0																		
EAST COASTAL PLAIN HYDRO SUBAREA Y01A1																		
5S/11W-29C 5 S 7-22-64	--	7.3	39000	882 44.1 8	1030 84.71 16	9300 404.36 75	120 3.07 1	0	193 3.16 1	2349 48.91 9	16840 474.89 90	0.0	0.2	3.90	--	36180 30620	6441	
5S/11W-29C 6 S 7-22-64	--	7.4	24000	1283 64.02 19	503 41.37 12	5300 230.44 68	40 1.02 1	0	197 3.23 1	1342 27.94 8	10640 300.05 91	0.0	0.2	1.33	--	20440 19206	5274	
5S/11W-29C 7 S 7-22-64	--	7.2	17000	1114 55.59 27	263 21.63 10	2970 129.14 62	15 0.38 1	0	184 3.02 1	581 12.10 6	6700 188.94 93	0.0	0.2	2.50	--	13220 11736	3864	
5S/11W-29C 8 S 7-22-64	--	11.2	2300	130 6.49 26	12 0.99 4	410 17.83 70	5 0.13 1	17 0.57 3	0	187 3.89 20	546 15.40 77	5.0 0.08	0.2	0.50	--	1310 1313	374	
5S/11W-29F 1 S 10-11-63	--	7.5	40000	631 31.49 6	1094 89.97 16	9900 430.45 77	224 5.73 1	0	176 2.88 1	2452 51.05 9	17570 495.47 90	0.0	0.2	2.50	10	33920 31970	6078	
4-16-64	--	7.0	40240	683 34.08 6	1102 90.63 17	9545 415.02 77	66 1.69 1	0	168 2.75 1	2362 49.18 9	17500 487.86 90	3.1 0.05	1.9	3.00	--	33630 31149	6240	
5S/11W-29F 2 S 1-11-63	--	7.9	2650	71 3.54 12	19 1.56 5	527 22.91 81	15 0.38 1	0	287 4.70 17	8 0.17 1	823 23.21 83	0.0	0.2	1.03	13	1624 1618	255	
4-16-64	--	8.0	3011	85 4.24 15	18 1.48 5	506 22.00 79	4 0.10 1	0	285 4.67 17	1 0.02 82	815 22.90 82	20.0 0.32 1	0.3	1.50	--	1673 1591	286	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				Mineral constituents in parts per million					
				Calcium mg	Magnesium mg	Sodium No	Potassium mg	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Barium B	Silica SiO ₂	Total Dissolved Solids as CaCO ₃	
55/11W-29J 2 S 10-10-63	--	7.2	11400	1162 57.98 44	4.69 67.39 52	1550 0.64	25	0	4.29 3	1054 21.94 17	3776 106.48 80	0.0	0.1	0.25	14	10060 7767	3136
4-10-64	--	7.3	12000	1093 54.54 35	334 27.47 18	1638 71.22 46	20	0	4.29 3	1209 25.17 16	4375 123.38 81	9.3 0.15	0.6	0.70	--	9412 8808	4104
55/11W-29J 3 S 10-10-63	--	8.2	370	22 1.10 29	2 0.16 4	58 2.52 66	2	0	150 2.46 64	27 0.56 14	30 0.85 22	0.0	0.6	--	11	242 226	63
4-10-64	--	8.3	405	22 1.10 29	2 0.16 4	57 2.48 65	2	0	155 2.54 65	24 0.50 13	29 0.82 21	1.0 0.02 1	0.3	0.06	--	212 214	63
55/11W-37A 1 S 10- 8-63	71	8.0	2800	69 3.44 12	22 1.81 6	525 22.83 81	5	0	352 5.77 21	4 0.08 79	778 21.94	0.0	0.2	1.24	14	1590 1591	263
4-16-64	71	8.0	2820	75 3.74 14	18 1.48 5	499 21.70 80	6	0	337 5.52 21	0 0.08 79	738 20.81	5.0 0.08	0.3	1.30	--	1498 1506	261
55/11W-33B 2 S 10- 9-63	65	7.8	600	86 4.29 54	13 1.07 14	57 2.48 51	3	0	207 3.39 42	3 0.06 1	162 4.57 57	0.0	0.4	0.09	15	564 441	268
4- 9-64	65	7.6	830	84 4.19 53	15 1.23 16	54 2.35 30	3	0	210 3.44 43	0 0.08 43	159 4.48 56	2.2 0.04 1	0.4	0.06	--	547 421	271

SANTA ANA RIVER HYDRO UNIT Y0100

LOWLICK SANTA ANA R. HYDRO. SUBUNIT Y01A0
EAST COASTAL PLAIN HYDRO. SUBAREA Y01A1

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million						parts per million equivalents per million reactance value					Mineral constituents in parts per million				
				Calcium Co	Magne- sium Mg	Sodium Na	Potass- ium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fluo- ride F	Boro- n B	Sili- ca SiO ₂	I.S.S. Exp. 105°C Exp. 105°C Computed	Hardness as CaCO ₃		
LOWER SANTA ANA R. HYDRO SUBUNIT Y01A0																			
EAST COASTAL PLAIN HYDRO SUBAREA Y01A1																			
SANTA ANA RIVER HYDRO UNIT Y0100																			
55/11W-338 3 5 10-10-63	65	11.7	21700	497 24.80 12	97 7.08 4	4100 178.27 83	180 4.60 2	47 1.87 1	0	0	430 9.75 4	6840 172.07 4	0.0	0.1	0.30	1	16394 12192	1640	
55/11W-338 4 5 10-10-63	64	8.4	1560	88 4.39 33	17 1.40 11	158 6.87 52	19 0.49 4	4 0.13 1	143 2.34 18	0	29 0.60 5	358 10.10 77	0.0	0.2	0.09	20	934 764	275	
4- 9-64	65	8.2	4384	118 5.89 14	93 7.65 18	630 27.39 65	35 0.89 2	0	198 3.25 8	0	150 3.12 7	1255 35.39 85	0.0	0.4	0.28	--	2800 2379	678	
55/11W-338 5 5 10- 9-63	67	8.1	375	38 1.90 44	6 0.49 11	42 1.83 43	2 0.05 1	0	192 3.15 74	0	32 0.67 16	19 0.42 10	0.0	0.4	0.09	15	242 243	1.00	
4- 9-64	68	8.1	396	37 1.85 45	7 0.58 14	38 1.65 40	2 0.05 1	0	193 3.16 75	0	27 0.56 13	17 0.48 11	0.6	0.6	0.07	--	277 264	122	
55/11W-33H 1 5 6-19-64	72	7.4	354	8 0.40 10	2 0.16 4	75 3.25 85	1 0.03 1	0	203 3.33 86	0	0 0.56 14	20 0.56 14	0.0	0.6	0.14	--	211 207	28	
55/11W-34F 3 5 12- 6-63	74	8.1	600	7 0.35 5	1 0.08 1	138 6.00 93	2 0.05 1	0	348 5.70 87	0	14 0.29 4	20 0.56 9	1.7	0.6	0.69	14	434 370	27	
55/11W-35E 1 5 12-31-63	69	7.3	6800	475 23.70 79	113 9.29 12	1060 46.96 58	16 0.41 1	0	628 10.29 13	0	26 0.74 1	2447 67.01 86	0.9	0.1	5.20	21	5020 4472	1651	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in										Mineral constituents in parts per million							
				Calcium	Magnesium	Sodium	Potassium	Chloride	Sulfate	Bicarbonate	Carbonate	Iron	Ammonia	Fluoride	Trace	Trace	Trace	Trace			
Date sampled				Ca	Mg	Na	K	Cl	SO ₄	HCO ₃	CO ₃	Fe	NH ₃	F	B	As	Li	Si	Other		
SANTA ANA RIVER HYDRO UNIT Y0100																					
LOWER SANTA ANA R. HYDRO SUBUNIT Y01A0																					
EAST COASTAL PLAIN HYDRO SUBAREA Y01A1																					
5S/11W-35F 4 S 6-17-64	--	8.5	380	9 0.45	2 0.16	72 3.13	1 0.03	17 0.35	14 6.35	17 0.35	3 0.10	1 0.03	1 0.03	1 0.03	0.6	0.12	--	230	206	534	534
5S/11W-35P 1 S 4-29-64	70	7.9	940	42 2.16	22 1.81	130 5.65	2 0.05	5 2.09	10 5.89	5 0.10	0 3.62	0 3.62	0 3.62	0 3.62	0.6	0.47	14	534	534	176	534
6-17-64	--	7.6	950	39 1.95	21 1.73	140 6.09	2 0.05	11 0.23	21 6.01	11 0.23	0 3.54	0 3.54	0 3.54	0 3.54	0.6	0.38	--	560	533	186	560
5S/11W-35P 4 S 4-29-64	72	8.0	570	18 0.90	1 0.08	116 5.04	2 0.05	0 3.98	75 2.12	0 3.98	0 3.98	0 3.98	0 3.98	0 3.98	0.6	0.37	13	364	345	49	364
5S/11W-35P 5 S 4-29-64	72	8.7	570	7 0.35	2 0.16	126 5.48	3 0.08	1 0.02	90 4.3	11 3.02	3 0.37	1 0.02	1 0.02	0.4	0.30	5	462	336	26	462	
5S/11W-35P 7 S 4-29-64	71	8.2	750	30 1.50	4 0.33	135 5.87	2 0.05	0 4.3	160 4.51	0 4.3	0 4.3	0 4.3	0 4.3	0.6	0.43	17	448	445	92	448	
5S/11W-36B 2 S 10-7-63	77	7.9	513	--	--	--	--	--	23 0.65	--	--	--	--	--	--	--	--	--	--	198	290
6-17-64	--	7.9	525	53 2.64	16 1.32	35 1.52	3 0.08	48 1.00	24 0.68	48 1.00	0 3.64	0 3.64	0 3.64	0.4	0.05	--	292	290	198	292	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million percent reactance value				Mineral constituents in parts per million						
				Calcium M.G.	Magnesium M.G.	Sodium No.	Potassium K.	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Bromine B	Sulfide S ⁻²	Iron mg/l	Evaporates at 105°C	Hardness CaCO ₃
55/12W-12C 1 5 6-19-64	--	8.2	330	2 0.08	1 0.08	73 3.17	0.03	1	0	157 2.57	15 0.31	14 0.39	0.0	0.6	0.10	--	210	9
55/12W-13A 2 5 7-21-64	--	7.6	1500	906 45.21	384 31.58	3100 134.79	25 0.64	0	0	226 3.70	697 14.51	6810 197.04	0.0	0.1	0.47	13	15000	3845
5- 1-64	68	7.5	17200	968 48.30	392 32.24	3500 152.18	32 0.82	0	561 9.19	917 19.09	7267 205.49	0.0	0.1	0.33	--	14500	4030	
55/12W-13A 3 5 11- 1-63	--	7.5	29500	1536 76.65	565 46.47	5800 252.18	11 0.28	0	62 1.02	1222 25.44	12462 351.99	0.0	0.1	0.60	12	23844	6161	
7-21-64	--	7.3	36000	1884 94.01	1308 107.57	8625 375.02	120 3.07	0	516 8.46	872 18.16	19500 549.90	0.0	0.4	1.52	14	38080		
55/12W-13A 4 5 11- 1-63	--	6.1	650	36 1.80	15 1.23	90 3.91	5 0.13	0	171 2.80	45 0.94	116 3.27	0.0	0.2	0.13	16	396	152	
7-20-64	--	8.2	600	40 2.00	18 1.48	73 3.17	4 0.10	0	201 3.29	39 0.81	92 2.59	0.0	0.2	0.18	15	374	174	
55/12W-13A 5 5 10-31-63	--	7.9	1325	67 3.34	18 1.48	210 9.13	6 0.15	0	112 1.84	69 1.44	376 10.60	0.0	0.4	0.13	16	876	241	
				24 1.0	10 0.65	65 2.6	1 0.03	0	13 0.21	10 0.26	76 2.14	0.0	0.4	0.13	16	818		

Y0100

SANTA ANA RIVER HYDRO UNIT

LOWER SANTA ANA R. HYDRO SUBUNIT Y01A0
EAST COASTAL PLAIN HYDRO SUBAREA Y01A1

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million				Mineral constituents in					
				Calcium	Magne- sium	Sodium	Potas- sium	Carbon- ate	Bicar- bonate	Sulfate	Chloride	Nitrate	Ferrous oxide	Baryte	Silica	parts per million	
Date sampled				Ca	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F ₂ O ₃	SiO ₂	Fe ₂ O ₃	Hardness	
SANTA ANA RIVER HYDRO UNIT Y0100																	
LOWER SANTA ANA R. HYDRO SUBUNIT Y01A0																	
EAST COASTAL PLAIN HYDRO SUBAREA Y01A1																	
6S/10W- 4B 1 S 6-16-64	--	8.3	380	14 0.70 17	0.08 2	76 3.30 80	0.03 1	0.07 2	2 177 2.90 72	30 0.62 15	15 0.42 10	0.0	0.8	0.12	--	248 227	39
6S/10W- 5B 3 S 6-16-64	7	8.2	430	35 1.75 40	10 0.82 19	41 1.78 41	2 0.05 1	0	190 3.11 72	30 0.62 14	20 0.56 13	0.0	0.2	0.02	--	258 232	179
6S/10W- 5K 2 S 10- 3-63	--	8.3	342	15 0.75 22	4 0.33 10	52 2.26 67	1 0.03 1	0	143 2.34 68	34 0.71 21	13 0.37 11	0.4 0.01	0.4	0.10	18	231 208	54
6S/10W- 5K 3 S 10- 3-63	--	8.3	930	101 5.04 49	20 1.64 16	79 3.43 33	5 0.13 1	14 0.47 5	249 4.08 40	144 3.00 29	95 2.68 26	1.0 0.02	0.3	0.10	27	620 609	334
6S/10W- 6A 2 S 10- 7-63	77	7.6	627	--	--	--	--	--	213 3.49	--	55 1.55	--	--	--	--	--	--
11- 5-63	--	8.0	800	51 2.54 41	24 1.97 31	39 1.70 27	2 0.05 1	0	219 3.59 58	45 0.94 15	57 1.61 26	0	0.2	0.13	15	382 341	226
6-16-64	--	8.1	570	52 2.59 44	19 1.56 27	38 1.65 28	2 0.05 1	0	228 3.74 62	55 1.15 19	39 1.10 18	0.0	0.4	0.05	--	326 318	208
6S/10W- 6H 1 S 2-10-64	--	7.0	1230	138 6.89 58	27 2.22 19	60 2.61 22	4 0.10 1	0	221 3.62 31	27 0.56 5	266 7.50 64	0.6 0.01	0.3	0.07	--	973 637	456

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in						parts per million equivalents per million percent				Mineral constituents in parts per million					
				Calcium Mg	Magne- sium	Sodium No	Potas- sium	Carben- ate	Bicar- bonate	Sulfate	Chlo- ride	Nit- rate	Fuo- ride	Boron B	Sul- co S ₂ O ₃	Iron Fe	Alu- min- um Al	Cu- per Cu	Zinc Zn
SANTA ANA RIVER HYDRO UNIT YO100																			
LOWER SANTA ANA R. HYDRO SUBUNIT YO1A0				EAST COASTAL PLAIN HYDRO SUBAREA YO1A1															
6S/10W-6H 1 S 6-17-64	--	7.7	700	53 2.64 37	30 2.47 35	45 1.96 27	0.08 0	3 1	0 0	231 3.79 54	38 0.79 11	87 2.45 35	0.0	0.2	0.07	--	4.10 370	256	
6S/10W-6H 2 S 8-6-64	--	7.6	582	58 2.89 47	17 1.40 23	41 1.78 29	0.05 0	2 1	0 0	219 3.59 58	36 0.75 12	64 1.80 29	0.0	0.4	0.10	18	360 344	215	
6S/10W-6J 2 S 10-7-63	--	8.2	335	20 1.00 28	1 0.08 2	55 2.39 67	3 0.08 2	3 2	0 0	151 2.47 69	29 0.60 17	18 0.51 14	0.0	0.4	0.09	12	226 213	54	
4-8-64	--	8.3	353	13 0.65 18	5 0.41 12	56 2.43 69	2 0.05 1	2 1	0 0	148 2.43 67	26 0.54 15	23 0.65 18	0.8 0.01	0.3	0.10	--	195 199	53	
6S/10W-7B 2 S 4-22-64	68	7.6	5200	697 34.78 60	116 9.54 17	305 13.26 23	9 0.23	0 0	170 2.79 5	4 0.08 0	1985 55.98 95	0.0	0.1	0.33	15	3880 3215	2218		
6S/10W-7E 2 S 10-8-63	--	8.6	530	14 0.70 11	1 0.08 1	127 5.52 87	3 0.08 1	3 1	11 0.37 6	305 5.00 81	12 0.25 4	21 0.59 10	0.0	0.8	0.36	11	384 351	39	
6S/10W-7E 3 S 10-9-63	--	9.6	510	13 0.65 11	1 0.08 1	115 5.00 87	2 0.05 1	2 1	64 2.13 38	156 2.56 46	17 0.35 6	18 0.51 9	0.0	0.8	0.30	11	364 319	37	
6S/10W-7E 4 S 10-9-63	--	7.8	7200	447 22.31 29	88 7.24 9	1080 46.96 61	13 0.33	0 0	272 4.46 6	10 0.21 0	2500 70.50 94	0.0	0.1	1.18	12	5382 4285	1479		

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number Date sampled	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million							Mineral constituents in parts per million						
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fluo- ride F	Boron B	Sili- co SiO ₂	Total Hardness as CaCO ₃	
LOWER SANTA ANA R. HYDRO SUBUNIT Y01A0 EAST COASTAL PLAIN HYDRO SUBAREA Y01A1														Y0100			
6S/10W-7J 4 S 4-21-64	--	7.8	4500	451 22,500 46	80 6.58 13	460 20,000 41	10 0.26 1	0	142 2.33 5	12 0.25 1	1631 45,999 95	0.0	0.1	0.35	16	3190	1455
6S/10W-7N 3 S 4-21-64	--	7.5	11600	607 30,229 22	163 13,41 10	2180 94,790 68	20 0.51	0	554 9.08 7	2 0.04 0.04	4521 127,499 93	0.0	0.1	2.80	17	8320	2187
6S/10W-7O 3 S 4-21-64	67	7.5	9000	794 39,623 37	165 13,573 13	1250 54,350 50	15 0.38	0	250 4.10 4	1 0.02 0.02	3713 104,719 96	0.0	0.1	0.95	17	7100	2662
6S/10W-8B 3 S 11-5-63	--	8.1	1050	7 0.35	2 0.16	275 11,960	2 0.05	0	375 6.15 50	7 0.15 1	209 5,889 48	0.0	2.0	1.70	17	760	26
R-4-64	--	7.9	1171	0 0.33	4 1.1	270 11,740	2 0.05	0	370 6.06 50	0 0.02 0.02	205 5,780 47	22.0 0.35 3	0.4	1.95	19	710	17
6S/10W-8C 2 S 10-4-63	--	8.6	1160	10 0.50	0.8 0.08	256 11,130	3 0.08	14 0.47	361 5.92 4	1 0.02 0.02	178 5,020 44	1.5 0.02	0.9	0.98	23	684	29
4-7-64	--	8.7	1140	10 0.50	0.8 0.08	253 11,000	4 0.10	22 0.73	334 5.47 47	1 0.02 0.02	188 5,300 46	2.2 0.04	1.1	1.30	--	670	79
6S/10W-8P 1 S 10-4-63	68	7.8	6750	265 13,220 20	111 9.13 14	999 43,440 66	10 0.26	0	261 4.28 7	1 0.02 0.02	2120 59,780 93	31.0 0.50 1	0.3	1.40	25	4590	1118
																	3692

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million				Mineral constituents in parts per million						
				Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total hardness as CaCO ₃		
SANTA ANA RIVER HYDRO UNIT Y0100																		
LOWER SANTA ANA R. HYDRO SUBUNIT Y01A0																		
EAST COASTAL PLAIN HYDRO SUBAREA Y01A1																		
6S/10W-9E 1 S 10- 2-63	--	9.5	1342	0.30 6	0	12.87 97	0.10 4	0.27 1	0.27 2	382 6.26	37 0.77	198 5.58	1.3 0.02	0.8	0.86	19	808 759	15
4-15-64	--	9.2	1261	0.35 3	0	11.87 97	0.05 2	0.27 2	0.46 13	272 4.46	33 0.69	194 5.47	1.5 0.02	0.7	0.82	--	706 694	18
6S/10W-9E 2 S 10- 2-63	--	8.6	695	0.25 4	0	6.61 96	0.03 1	0.70 10	0.70 55	3.80 0.04	2 0.04	83 2.34	1.5 0.02	1.1	0.76	17	447 398	13
4-15-64	--	8.7	668	0.25 4	0	6.52 96	0.03 1	0.60 9	0.60 55	3.75 0.06	3 1	83 2.34	3.0 0.05	1.0	0.95	--	415 377	13
6S/10W-9M 1 S 10- 3-63	--	8.5	1316	0.50 4	1	11.87 95	0.05 1	0.17 5	0.17 2	4.28 261	0 0	7.87 64	0.0	1.2	1.03	21	777 722	29
4- 7-64	80	8.6	1318	0.55 4	2	12.30 94	0.08 1	0.40 3	0.40 32	4.11 3.2	0 0	8.18 64	0.03	1.2	1.30	--	756 729	36
6S/10W-9M 2 S 10- 3-63	--	8.8	877	0.25 3	1	8.26 96	0.05 1	0.53 6	0.53 48	4.00 0.02	1 0	136 3.84	1.0 0.02	1.2	0.91	21	539 495	17
4- 7-64	79	8.8	858	0.30 4	0	8.00 96	0.05 1	0.47 6	0.47 45	3.82 0.02	0 0	147 4.15	1.5 0.02	1.4	1.40	--	513 472	15

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent reactance value				Mineral constituents in parts per million				
				Calcium M.G.	Magne- sium M.G.	Sodium No.	Potas- sium K.	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fluo- ride F	Baron B.	Sili- co SiO ₂	I.D.S. Evap 105°C
SANTA ANA RIVER HYDRO UNIT Y0100																
LOWER SANTA ANA R. HYDRO SUBUNIT Y01A0																
FAST COASTAL PLAIN HYDRO SURAREA Y01A1																
6S/10W-9M 3 S 10- 3-63	--	8.7	1592	10 3	2 1	327 14.22 95	3 0.08 1	14 0.47 3	234 3.84 26	0	372 10.49 71	1.3 0.02	1.1	1.06	18 885	33
4- 7-64	81	8.7	1567	10 3	3 2	322 14.00 94	4 0.10 1	17 0.57 4	224 3.67 24	0	390 11.00 72	3.9 0.06	1.0	1.00	-- 864 877	3R
6S/10W-12E 3 S 7-24-64	--	8.7	1016	6 3	1 1	228 9.91 96	2 0.05 7	22 0.73 7	207 3.39 34	11 0.23 2	202 5.70 57	1.0 0.02	0.8	0.96	30 582	1Y
6S/10W-17E 2 S 8- 6-64	--	7.0	9681	536 26	181 15	1380 60.00 59	20 0.51	0	144 2.36 2	0	3500 98.70 97	12.0 0.19	1.4	1.20	15 6035	20R4
6S/10W-17M 2 S 4-23-64	--	7.8	9100	216 10	253 20	1850 80.44 71	45 1.15 1	0	574 9.41 8	512 10.66 10	3245 91.51 82	0.0	0.2	1.73	23 6648	15R1
6S/10W-18A 1 S 4-22-64	--	7.9	6000	533 41	98 17	690 30.00 46	13 0.33 1	0	157 2.57 4	3	2199 62.01 96	0.0	0.1	0.51	17 4116	1734
6S/10W-18K 7 S 4-24-64	--	7.5	18500	838 41	367 30	3700 160.88 69	60 1.53 1	0	562 9.21 4	1	7870 221.93 96	0.0	0.1	3.50	18 14240	3603
6S/11W-1A 3 S 8- 3-64	70	8.2	340	0.10 3	0.08 2	3.65 84 95	0.03 1 1	0	189 3.10 83	11 0.23 6	14 0.39 10	0.0	0.4	0.15	-- 250	9

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million						Mineral constituents in equivalents per million					Mineral constituents in parts per million			
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fluo- ride F	Boro- n B	Sili- ca SiO ₂	I.D.S. Exp- 180°C Exp-105°C Computed	Tot- al hardness as CaCO ₃	
LOWER SANTA ANA R. HYDRO. SUBUNIT Y01A0																		
EAST COASTAL PLAIN HYDRO SUBAREA Y01A1																		
SANTA ANA RIVER HYDRO UNIT																		
Y0100																		
6S/11W-1B 2 S 8-3-64	70	8.4	345	6 0.30	0.16 4	75 3.26	0.03 87	1 1	0.07 2	2 79	178 2.92	5 0.10	21 0.59	1.0 0.02	0.6 1	0.12	234 201	23
8-19-64	--	7.5	365	9 0.45	0 12	75 3.26	0.03 87	1 1	0 1	188 3.08	11 0.23	16 0.45	0.0 0.04	0.0 0.0	0.6 1	0.12	223 205	23
6S/11W-1F 2 S 10-4-63	--	7.6	3367	410 20.46	82 6.74	119 5.17	0.23 16	9 1	0 1	95 1.56	105 2.19	975 27.50	2.6 0.04	0.2 0.0	0.15	2895 1779	1361	
4-8-64	56	7.5	2058	733 11.63	52 2.28	87 3.78	0.15 19	6 1	0 1	123 2.02	131 2.73	530 14.95	6.0 0.10	0.1 1	0.09	1727 1106	796	
6S/11W-1J 4 S 10-2-63	--	9.0	436	7 0.35	1 0.08	97 4.22	0.05 2	2 1	0.80 17	214 3.51	0.02 0.02	14 0.39	1.4 0.02	0.6 0.02	0.30	252 277	22	
4-15-64	--	8.9	441	9 0.45	0 10	97 4.22	0.05 89	2 1	19 13	216 3.54	1 0.02	19 0.54	1.6 0.03	0.7 1	0.34	265 256	23	
6S/11W-1J 5 S 10-1-63	--	8.8	421	28 1.40	5 0.41	55 2.39	0.08 56	3 2	10 8	96 1.57	48 1.00	45 1.27	1.0 0.02	0.4 0.02	0.06	231 264	91	
4-15-64	--	8.8	455	38 1.90	4 0.33	49 2.13	0.08 48	3 2	12 9	99 1.62	46 0.96	50 1.41	0.0 0.0	0.2 0.02	0.05	228 251	112	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million				Mineral constituents in parts per million						
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Bromine	Silver	Iron	Copper	Zinc
Date sampled				Co	Mg	No	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	Ag	Cu	Zn	
SANTA ANA RIVER HYDRO UNIT Y0100																		
LOWER SANTA ANA R. HYDRO SURUNIT Y01A0																		
FAST COASTAL PLAIN HYDRO SUBAREA Y01A1																		
6S/11W-1J 6 S 10-2-63	--	10.5	7510	928 46.31 62	11 0.90 1	612 26.61 36	17 0.43 1	12 0.40 1	0	203 4.23 6	2400 67.68 94	3.7 0.06	0.2	0.03	9	51.01 4196	2362	2194
4-15-64	--	9.7	6820	849 42.37 63	1.48 0.25 2	518 22.52 34	16 0.41 1	10 0.33 1	0	173 3.60 5	2210 62.32 94	0.0 0.0	0.3	0.02	--	3794	329	55
6S/11V-1N 1 S 8-19-64	--	7.2	538	17 0.85 14	3 0.25 4	109 4.74 80	2 0.05 1	0	312 5.11 90	0	0.59 10	0.0 0.0	0.8	0.37	--	307	32	37
6S/11W-1N 2 S 3-25-64	--	7.7	505	11 0.55 10	1 0.08 2	106 4.61 87	2 0.05 1	0	302 4.95 89	0	0.59 11	0.0 0.0	0.6	0.31	--	290	352	298
6-17-64	7J	7.9	540	13 0.65 12	1 0.08 1	110 4.78 86	2 0.05 1	0	317 5.20 93	0	0.39 7	1.0 0.02	0.8	0.33	--	3648	2084	2092
6S/11W-1P 2 S 4-27-64	--	7.4	5000	673 33.58 60	98 8.06 14	315 13.70 25	10 0.26	0	113 1.85 3	143 2.98 5	1784 50.31 91	0.0 0.0	0.1	0.28	13	3648	2084	2092
6S/11W-1Q 2 S 10-8-63	66	7.5	10400	1010 50.40 43	181 14.89 13	1200 52.18 44	15 0.38	0	146 2.39 2	471 9.61 8	3716 104.79 90	0.0 0.0	0.1	0.18	16	9178	3267	6681
4-8-64	--	7.5	8440	832 41.52 46	160 13.16 14	828 36.00 40	14 0.36	0	185 3.03 3	332 6.91 8	2860 80.65 89	0.0 0.0	0.5	0.12	--	6652	2736	5118

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million				Mineral constituents in parts per million				
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	I.D.S. Expressed as CaCO ₃
6S/11W-10 4 S 4-14-64	--	7.5	12346	1259	233	1362	17	0	151	587	4420	5.0	0	--	9540	4102
				62.82	19.16	59.22	0.43	2.47	12.22	124.64	0.08	7958				
6S/11W-10 5 C 12-12-63	62	8.1	900	44	--	155	--	20	238	64	64	--	--	--	52	
				--	--	6.74	0.67	3.90	--	1.80	--	--	--	--	--	--
4-14-64	--	7.9	2203	224	57	168	39	0	227	657	223	19.0	0.7	0.21	1566	794
				11.18	4.69	7.30	1.00	3.72	13.68	6.29	0.31	7958				
6S/11W-10 6 S 4-14-64	62	9.1	556	46	19	36	4	0	16	57	26	4.0	0.7	0.50	1500	38
				0.65	0.16	5.30	0.05	2.76	2	38	4.0	0.7	0.50	1500	38	
6S/11W-10 7 S 12-12-63	63	7.9	580	11	3	87	1	29	3.70	0.04	1.07	0.06	--	--	323	149
				--	--	2.61	--	0	168	76	--	--	--	--	--	--
4-14-64	--	8.3	542	47	9	47	3	0	159	17	78	0.8	0.4	0.05	220	155
				2.35	0.74	2.04	0.08	2.61	0.35	2.20	0.01	280				
6S/11W-10 8 C 12-12-63	--	7.7	11400	65	14	39	2	0	50	7	43	--	--	--	3790	
				--	--	1900	--	0	171	--	4504	--	--	--	--	--
4-14-64	--	7.5	14750	1380	275	1680	23	0	166	658	5250	5.6	0.6	0.15	10540	4453
				66.37	22.62	73.05	0.59	2.72	13.70	148.05	0.09	9304				

Y0100

SANTA ANA RIVER HYDRO UNIT

LOWER SANTA ANA R. HYDRO SUBUNIT Y010A
EAST COASTAL PLAIN HYDRO SUBAREA Y01A1

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million percent reactance value				Mineral constituents in parts per million				
				Calcium M.G.	Magnesium M.G.	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Fluoride F	Barium Ba	Nitrate NO ₃	Iron Fe	Manganese Mn
6S/11W-10 9 5 12-12-63	63	7.6	9600	--	--	1610 70.00	--	0	178 2.92	--	3780 106.60	--	--	--	--	3055
4-14-64	--	7.4	8718	713 15.84 60	144 11.84 13	945 41.09 46	14 0.36	0	176 2.07 2	391 7.31 8	2820 79.52 89	0.4	0.11	--	6688 5050	2374
6S/11W-3J 1 6 6-23-64	--	7.4	6400	741 36.98 52	165 13.57 19	475 20.65 29	11 0.28	0	256 4.20 6	176 3.66 5	2230 62.89 89	0.2	0.20	--	538 3924	2510
6S/11W-3R 0 5 10-2-62	77	8.0	1974	85 4.24 22	32 2.63 14	278 12.09 63	4 0.10	--	343 5.62 30	0	471 13.26 70	0.4	0.38	16	1102 1056	344
6-23-64	72	8.0	2100	84 4.19 20	47 3.87 18	305 13.26 62	5 0.13	0	347 5.69 27	6 0.12 1	553 15.59 73	0.4	0.50	--	1310 1172	402
6S/11W-11G 1 5 6-17-64	68	7.7	1550	142 7.09 44	60 4.93 31	92 4.09 25	4 0.10	0	199 3.26 21	37 0.77 5	419 11.82 74	0.2	0.13	--	987 855	601
6S/11W-12B 0 5 12-9-62	--	7.3	10900	729 36.38 31	195 16.04 14	1500 65.22 55	15 0.38	0	183 3.00 3	459 9.56 8	3723 104.99 89	0.1	0.21	13	8422 6724	2623
4-6-64	--	7.11	9030	654 27.68 34	154 12.66 14	1097 47.70 51	14 0.36	0	182 2.98 3	351 7.31 8	3010 84.88 89	0.5	0.22	--	6662 5371	2269

Y6100

SANTA ANA RIVER HYDRO UNIT

LOWER SANTA ANA R. HYDRO SUBUNIT Y01AG
EAST COASTAL PLAIN HYDRO SUBAREA Y01A1

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million						Mineral constituents in parts per million							
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fluo- ride F	Boron B	Sili- co SiO ₂	I.D.S. Evap 105°C Computed CaCl ₂	Total hardness as CaCl ₂
SANTA ANA RIVER HYDRO UNIT Y0100																	
LOWER SANTA ANA R. HYDRO SUBUNIT Y01A0																	
EAST COASTAL PLAIN HYDRO SUBAREA Y01A1																	
6S/11W-12G 1 S 12-12-63	63	7.6	2000	--	--	4130 179.57	--	0	184 3.02	--	--	8581 241.98	--	--	--	--	5950
4-15-64	--	7.0	2241	1739 86.78 32	436 35.86 13	3312 144.01 54	25 0.64	0	165 2.70 1	1123 23.38 9	14.0 0.23	8600 242.52 90	1.4	0.30	--	17520 15332	6137
6S/11W-13C 2 S 4-13-64	--	4.0	12500	1085 54.14 40	263 21.63 16	1352 58.78 44	17 0.43	0	0	167 3.48 3	11.0 0.18	4750 133.95 97	0.5	0	--	8124 7646	3792
6S/11W-13D 1 S 4-13-64	--	7.3	25840	1160 57.88 19	591 48.60 16	4589 199.53 65	39 1.00	0	18 0.30	1058 22.03 7	12.0 0.19	10350 291.87 93	0.9	1.24	--	19790 17810	5328
6S/11W-13F 4 S 6-22-64	--	7.1	12680	1108 55.29 40	301 24.75 18	1324 57.57 42	12 0.31	0	221 3.62 3	62 1.29 1	9.0 0.15	4590 129.44 96	0.5	0.60	--	8520 7516	4005
6S/11W-20D 1 S 4-29-64	69	8.0	880	76 3.79 39	30 2.47 26	76 3.30 34	4 0.10 1	0	195 3.20 33	56 1.17 12	0.0	184 5.19 54	0.6	0.12	18	616 541	313
SANTIAGO HYDRO SUBAREA				Y01A2				0	366 6.00	--	--	30 0.85	--	--	--	--	
5S/ 7W-19R 1 S 3-17-64	--	7.4	987	--	--	--	--	0	--	--	--	--	--	--	--	--	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				parts per million				Mineral constituents in parts per million		
				Calcium Co	Magne- sium Mg	Sodium No	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Nit- rate NO ₃	Fluo- ride F	Boron B	Sil- ica SiO ₂	Iron Oxide Fe ₂ O ₃	Total hardness as CaCl ₂	
LOWER SANTA ANA R. HYDRO SUBUNIT Y01A0																		
SANTIAGO HYDRO SUBAREA Y01A2																		
5S/ 7W-29E 1 S 3-17-64	--	7.6	987	113 5.64 51	37 3.04 28	2.22 20	0.10 1	4	0	368 6.03 54	208 4.33 39	29 0.82 7	0	0.2	0.09	13	672 636	434
5S/ 8W- 1N 1 S 3-17-64	--	7.7	1271	--	--	--	--	--	0	303 4.97	--	49 1.36	--	--	--	--	--	--
5S/ 8W-13C 1 S 3-17-64	--	7.4	840	--	--	--	--	--	0	312 5.11	--	25 0.71	--	--	--	--	--	--
SANTA ANA NARROWS HYDRO SUBAREA Y01A3																		
3S/ 8W-25J 1 S 4- 6-64	--	7.9	1723	174 8.68 44	53 4.26 22	1.46 6.35 32	6 0.15 1	6	0	396 6.49 33	414 8.62 44	157 4.43 23	1.6 0.03	0.9	0.27	19	1203 1166	653
3S/ 8W-31F 1 S 4- 6-64	--	7.8	1117	--	--	--	--	--	0	185 3.03	291 6.06	92 2.59	--	--	--	--	--	--
3S/ 8W-33K 2 S 4- 6-64	--	7.6	1564	135 6.74 39	63 5.18 30	124 5.39 31	4 0.10 1	4	0	357 5.85 33	412 8.58 48	115 3.24 18	4.7 0.08	0.5	0.15	17	1097 1051	596
3S/ 8W-34M 1 S 4- 6-64	--	7.6	1529	--	--	--	--	--	0	357 5.85	--	128 3.61	--	--	--	--	--	--

TABLE E-1
 MINERAL ANALYSES OF GROUND WATER 1963/64
 SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million reactance value			Mineral constituents in parts per million						
				Calcium Co	Magne- sium Mg	Sodium No	Potass- ium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fer- ric oxide Fe ₂ O ₃	Sul- fur dioxide SO ₂	I.O.S. Exp. 180°C Exp. 160°C Computed CaCO ₃	Y to hardness as CaCO ₃	
LOWER SANTA ANA R. HYDRO SUBUNIT Y01A0																	
SANTA ANA NARROWS HYDRO SUBAREA Y01A3																	
SANTA ANA RIVER HYDRO UNIT Y0100																	
45/ 9W- 1C 1 S 4- 6-64	--	7.9	1694	136 6.79 37	61 5.02 27	148 6.44 35	5 0.13 1	0	374 6.13 32	352 7.33 39	193 5.44 29	1.8 0.03	1.0	0.19	8	1151 1090	591
45/ 9W- 1E 2 S 4- 6-64	--	7.6	1936	157 7.83 37	62 5.10 24	188 8.17 39	--	0	421 6.90 32	388 8.08 37	233 6.57 30	1.6 0.03	1.1	0.27	12	1295 1250	647

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million percent				Mineral constituents in parts per million						
				Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Fluoride F	Barium Ba	Silica SiO ₂	Soluble Iron Fe	Lead Pb	Cadmium Cd	Vanadium V
SANTA ANA RIVER HYDRO UNIT Y0100																		
MIDDLE SANTA ANA R HYDRO SUBUNIT Y01B0																		
CHINO HYDRO SUBAREA Y01B1																		
1S/ 5W- 6D 1 S 4-10-64	--	8.0	353	50 2.50 65	6 0.49 13	19 0.83 22	1 0.03 1	0	0	212 3.47 88	6 0.12 3	8 0.23 6	7 0.11 3	0.3	0.01	--	236 202	150
1S/ 5W- 7N 1 S 4-10-64	--	8.1	348	56 2.57 66	6 0.49 13	17 0.74 20	2 0.05 1	0	0	196 3.21 84	11 0.73 6	8 0.23 6	10 0.16 4	0.3	0	--	218 201	150
1S/ 5W-15G 1 S 4-10-64	--	7.7	428	65 3.24 72	6 0.49 11	16 0.70 16	2 0.05 1	0	0	189 3.10 67	30 0.62 13	12 0.34 7	35 0.56 12	0.4	0.02	--	295 259	187
1S/ 5W-16J 1 S 4-10-64	--	7.7	420	64 3.19 73	6 0.49 11	15 0.65 15	2 0.05 1	0	0	182 2.98 66	28 0.58 13	12 0.34 8	38 0.61 14	0.3	0.02	--	277 255	184
1S/ 5W-21B 1 S 4-10-64	--	7.9	421	66 3.29 74	6 0.49 11	14 0.61 14	2 0.05 1	0	0	189 3.10 68	25 0.52 11	14 0.39 9	33 0.53 12	0.4	0.02	--	277 253	189
1S/ 6W- 8Q 1 S 9-28-64	--	7.4	330	40 2.00 55	9 0.74 20	20 0.87 24	2 0.05 1	5	5	176 2.88 82	10 0.21 6	11 0.31 9	8 0.13 4	0.2	0.05	--	196 187	137
1S/ 6W-11B 1 S 3-31-64	--	7.7	359	52 2.59 65	7 0.58 15	17 0.74 19	2 0.05 1	0	0	203 3.33 85	6 0.12 3	11 0.31 8	9 0.15 4	0.3	0.01	--	230 204	159
1S/ 6W-11N 1 S 12-28-63	--	7.9	366	55 2.74 70	6 0.49 13	15 0.65 17	1 0.03 1	0	0	200 3.28 86	5 0.10 3	11 0.31 6	11 0.14 4	0.2	0.02	--	228 200	162

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million percent reactance value				Mineral constituents in parts per million							
				Calcium Co	Magnesium Mg	Sodium No	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	I.D.S. Exp. (D.S.C.) Computed	Total hardness of CaCO ₃		
MIDDLE SANTA ANA R HYDRO SUBUNIT Y01B0																			
CHINO HYDRO SUBAREA Y01B1																			
1S/ 6W-11N 1 S 3-31-64	--	7.7	353	53 2.64 68	0.49 13	16 0.70 18	0.05 1	2 1	0 3.38 86	206 3.38 86	6 3	0.12 7	10 7	9 0.15 4	0.3	0.03	--	228 204	157
1S/ 6W-12P 1 S 3-31-64	--	7.9	345	48 2.40 65	0.49 13	18 0.78 21	0.05 1	2 1	0 3.16 84	193 3.16 84	10 6	0.21 7	9 7	10 0.16 4	0.3	0.03	--	220 198	145
1S/ 6W-16A 1 S 3-11-64	--	8.3	345	42 2.10 59	0.66 19	17 0.74 21	0.05 1	2 1	7 0.23 6	163 2.67 75	10 6	0.21 6	11 9	7.5 0.12 3	0.1	0	--	228 185	138
9-25-64	--	7.9	340	41 2.05 55	0.82 22	19 0.83 22	0.05 1	2 1	0 77	183 3.00 77	11 6	0.23 6	19 14	7 0.11 3	0.2	0.02	--	199	144
1S/ 6W-17G 1 S 9-28-64	--	7.8	310	39 1.95 59	0.49 15	19 0.83 25	0.03 1	1 1	0 2.70 85	165 2.70 85	6 4	0.12 4	10 9	5 0.08 3	0.4	0.08	--	190 168	122
1S/ 6W-20Q 1 S 3-11-64	--	8.1	358	43 2.15 58	0.74 20	18 0.78 21	0.05 1	2 1	0 80	185 3.03 80	10 6	0.21 6	14 10	10 0.16 4	0.1	0	--	250 197	145
9-28-64	--	7.8	335	36 1.80 50	1.23 34	12 0.52 14	0.05 1	2 1	0 82	184 3.02 82	10 6	0.21 6	12 9	8 0.13 4	0.4	0.10	--	200 186	152
1S/ 6W-28N 3 S 3-11-64	--	8.2	424	57 2.84 66	0.49 11	21 0.91 21	0.05 1	2 1	0 74	196 3.21 74	6 3	0.12 3	26 17	17 0.27 6	0.1	0	--	258 231	167

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Date sampled	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					Mineral constituents in parts per million									
					Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total Dissolved Solids TDS Computed	Total Hardness TDS Calc'd	
MIDDLE SANTA ANA R HYDRO SUBUNIT Y01B0																			
CHINO HYDRO SUBAREA Y01B1																			
1S/ 6W-34K 2 S 10-14-63		--	7.4	738	97 4.84 65	11 0.90 12	38 1.65 22	0 0.05 1	2 0.05 1	0 0.05 1	239 3.92 51	27 0.56 7	80 2.26 30	55 0.89 12	0 0.2	0 0.02	33 461	495 227 203	287 159
1S/ 6W-35A 1 S 3-31-64		--	8.3	346	52 2.59 67	7 0.58 15	15 0.65 17	2 0.05 1	12 0.40 10	177 2.90 74	15 0.31 8	7 0.20 5	6 0.10 3	0.4	0.04	--	227 203	197 189	152
1S/ 7W-8N 1 S 3-31-64		--	7.8	334	46 2.30 64	9 0.74 21	12 0.52 14	1 0.03 1	0 0.03 1	184 3.02 82	13 0.27 7	8 0.23 6	9 0.15 4	0.4	0.04	0.03	197 189	283 274	165
1S/ 7W-20A 1 S 3-31-64		--	7.8	457	48 2.60 50	11 0.90 19	33 1.53 40	2 0.05 1	0 0.05 1	170 2.79 57	65 1.35 27	22 0.62 13	9 0.15 3	0.5	0.05	0.05	283 274	211 203	150
1S/ 7W-26P 1 S 3-11-64		--	8.3	357	45 2.25 58	9 0.74 19	19 0.83 21	2 0.05 1	10 0.33 8	185 3.03 76	12 0.25 6	10 0.28 7	5 0.08 2	0.1	0.03	0	198 199	222 203	144
9-25-64		--	8.1	350	46 2.30 59	7 0.58 15	22 0.96 25	2 0.05 1	0 0.05 1	203 3.33 87	15 0.31 8	6 0.17 4	1 0.02 1	0.2	0.05	0.05	222 203	200 198	146
1S/ 7W-35B 1 S 3-11-64		--	8.2	385	45 2.25 56	10 0.82 21	20 0.87 22	2 0.05 1	0 0.05 1	196 3.21 83	6 0.12 3	15 0.42 11	3 0.13 3	0.2	0.05	0	222 203	200 198	146
9-25-64		--	8.0	352	42 2.10 53	10 0.82 21	23 1.00 25	2 0.05 1	0 0.05 1	203 3.33 87	7 0.15 4	10 0.28 7	4 0.06 2	0.1	0	0	200 198	200 198	146

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million						parts per million equivalents per million reactance value				Mineral constituents in parts per million				
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Barium	Silica	Iron	Copper	Zinc
Date sampled				Co	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	Fe	Cu	Zn	
MIDDLE - SANTA ANA R HYDRO SUBUNIT Y01B0																		
CHINO HYDRO SUBAREA Y01B1																		
1S/ 8W-14A 1 S 3-31-64	--	7.7	423	56	1.07	14	0.05	2	3.06	25	9	48	0.4	0.03	269	193		
				62	24	13	1	1	67	11	5	17			259			
1S/ 8W-15J 1 S 8-25-64	--	7.6	390	46	1.40	12	0.05	0	2.92	20	8	35.0	0.3	0.05	263	185		
				54	33	12	1	1	70	10	6	15			231			
9- 1-64	--	7.2	366	52	1.2	12	2	0	181	22	9	36.0	0.2	0.08	240	179		
				62	24	13	1	1	70	11	6	14			234			
9- 7-64	--	7.9	382	54	1.1	12	2	0	176	22	8	35.0	0.2	0.08	268	180		
				65	22	13	1	1	70	11	6	14			231			
9-14-64	--	7.7	386	52	1.1	12	2	0	181	17	6	33	0.3	0.01	251	175		
				64	22	13	1	1	74	9	4	13			222			
9-21-64	--	7.5	383	52	1.2	12	2	0	181	18	7	34	0.3	0.03	242	179		
				62	24	13	1	1	73	9	5	13			226			
1S/ 8W-28E 2 S 6-27-64	--	7.6	310	53	1.4	13	2	0	178	35	14	65	0.2	0.08	346	231		
				59	38	11	1	1	57	14	8	21			294			
1S/ 8W-28N 1 S 6-22-64	--	7.0	390	44	1.5	16	2	0	184	24	9	15	0.2	0.08	234	172		
				53	29	17	1	1	75	12	6	16			216			

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					Mineral constituents in parts per million								
				Calcium Co	Magnesium Mg	Sodium No	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total Hardness CaCO ₃	
1S/ 8W-30J 1 S 6-22-64	69	7.6	620	55 2.74 43	34 2.80 44	18 0.78 12	2 0.05 1	0	230 3.77 60	61 1.27 20	23 0.65 10	35 0.56 9	0.2	0.08	--	398 341	277
1S/ 8W-33K 1 S 9-3-64	--	7.7	450	51 2.54 55	19 1.56 34	11 0.48 10	1 0.03 1	0	190 3.11 69	24 0.50 11	14 0.39 9	33 0.53 12	0.2	0.08	--	282 247	205
1S/ 8W-35L 2 S 3-31-64	--	7.9	439	65 3.24 70	12 0.99 21	9 0.39 8	1 0.03 1	0	193 3.16 68	19 0.40 9	13 0.37 8	46 0.74 16	0.4	0.03	--	291 260	212
1S/ 8W-36H 1 S 9-3-64	--	7.8	450	65 3.24 68	11 0.90 19	14 0.61 13	2 0.05 1	0	196 3.21 68	22 0.46 10	15 0.42 9	40 0.65 14	0.1	0.08	--	296 265	207
2S/ 5W-7N 1 S 5-8-64	--	7.2	1677	145 7.24 38	70 5.76 31	132 5.74 30	3 0.08 0	0	341 5.59 30	213 4.43 23	143 4.03 21	300 4.84 26	0.8	0.09	--	1307 1174	651
2S/ 6W-5A 1 S 10-24-63	--	8.1	333	39 1.95 54	7 0.58 16	7 1.00 28	2 0.05 1	0	183 3.00 84	13 0.27 8	7 0.20 6	7 0.12 3	0.4	0.02	--	215 189	127
6-17-64	--	8.7	330	36 1.80 53	9 0.74 22	19 0.83 24	2 0.05 1	0	168 2.75 80	17 0.35 10	9 0.25 7	5 0.08 2	0.2	0.02	--	200 180	127
2S/ 6W-12M 2 S 10-24-63	--	7.2	912	74 3.69 37	38 3.13 31	72 3.13 31	1 0.03 0	0	371 6.08 60	82 1.71 17	82 2.31 23	0.5 0.01	0.6	0.15	--	578 533	341

SANTA ANA RIVER HYDRO UNIT Y0100

MIDDLE SANTA ANA R HYDRO SUBUNIT Y0190
CHINO HYDRO SUBAREA Y0191

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent reactance value				Mineral constituents in parts per million				
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlor- ide Cl	Ni- trate NO ₃	Fer- ride Fe	Bicarb- onate CO ₃	Sul- fate SO ₄	Tota- l Hardness CaCO ₃
SANTA ANA RIVER HYDRO UNIT Y0100																
MIDDLE SANTA ANA R HYDRO SUBUNIT Y0180																
CHINO HYDRO SUBAREA Y0161																
2S/ 6W-12M 2 S 5- 8-64	--	7.5	703	77 3,084 38	40 3,29 33	65 2,83 28	1 0.03	0	0	339 5,56 55	85 1,77 17	83 2,34 23	30 0.48 5	0.7 0.11	584 548	357
6-17-64	--	7.9	940	64 3,19 32	44 3,62 36	75 3,26 32	2 0.05	0	0	335 5,49 55	75 1,56 16	89 2,51 25	27 0.44 4	0.2 0.18	568 541	341
2S/ 6W-14K 1 S 5- 8-64	--	7.2	1197	96 4,079 35	51 4,19 30	110 4,78 35	0	0	397 6,51 48	139 2,89 21	120 3,38 25	43 0.69 5	0.9 0.09	828 755	449	
2S/ 6W-21Q 1 S 10-24-63	--	8.0	859	55 2,474 34	11 0,90 11	99 4,30 53	4 0.10	0	100 1,64 21	79 1,64 21	162 4,57 58	0.3 0.3	0.13	487 460	182	
5- 8-64	--	7.4	1099	124 6,19 53	14 1,15 10	100 4,35 37	0	0	317 5,20 44	112 2,33 20	148 4,17 35	13 0.21 2	0.4 0.26	740 667	367	
6-17-64	--	8.1	1050	66 3,029 30	35 2,88 26	107 4,65 43	3	0	258 4,23 39	114 2,37 22	145 4,20 38	7 0.11 1	0.22	664 608	309	
2S/ 6W-30Q 1 S 6-17-64	68	8.0	690	75 3,074 54	27 1,81 26	31 1,35 19	2 0.05	0	261 4,28 60	58 1,21 17	45 1,27 18	20 0.32 5	0.1 0.05	420 381	278	
2S/ 6W-31D 2 S 5- 8-64	--	7.6	782	110 5,049 65	9 0,74 9	48 2,09 25	3	0	316 5,18 53	64 1,35 16	46 1,35 16	24 0.39 5	0.4 0.01	497 462	312	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million							Mineral constituents in parts per million					
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total hardness Computed
MIDDLE SANTA ANA R HYDRO SUBUNIT Y0181/														Y0100		
CHINO HYDRO SUBAREA Y0181																
2S/ 7W- 2G 1 S 3-31-64	--	8.2	447	53 2,64 56	12 0.99	23 1.00 21	2 0.05	0	220 3,61	7 0.15	23 0.65	22 0.35	0	0.2	249	182
9-28-64	--	8.1	460	48 2,44 53	12 0.99	26 1.13 25	1 0.03	0	234 3,84	0	22 0.62	14 0.23	0	0.1	234	170
2S/ 7W- 2M 2 S 9- 2-64	--	7.9	800	72 3,59 44	40 3.29	30 1.30 16	2 0.05	0	278 4,56	73 1,52	60 1.69	31 0.50	0.08	0.1	510	344
2S/ 7W- 2G 1 S 3-11-64	--	8.1	526	62 3,09 57	15 1.23	24 1.04 19	2 0.05	0	222 3,64	8 0.17	33 0.93	42 0.68	0.03	0.2	311	216
9-28-64	--	7.7	480	36 1,80 40	17 1.40	28 1.22 27	2 0.05	0	228 3,74	43 0.90	38 1.07	26 0.42	0.08	0.6	316	160
2S/ 7W- 3A 1 S 5-12-64	--	8.1	506	65 3,24 59	16 1.32	21 0.91 16	2 0.05	0	221 3,62	28 0.58	17 0.48	52 0.84	0.02	0.4	357	226
2S/ 7W- 4B 1 S 10-23-63	--	7.7	358	39 1,95 50	13 1.07	19 0.83 21	2 0.05	0	195 3,20	17 0.35	9 0.25	8 0.13	0.03	0.2	227	151
5-12-64	--	7.7	343	41 2,05 56	10 0.82	17 0.74 20	2 0.05	0	182 2,98	17 0.35	8 0.23	9.0 0.15	0.03	0.4	235	144

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million percent reactance value				Mineral constituents in parts per million						
				Calcium Co	Magne- sium Mg	Sodium No	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Flu- oride F	Boron B	Sul- fa- te SO ₄	Iron Fe	Cu Cu	Zn Zn
2S/ 7W-4B 2 S 3- 9-64	--	7.6	361	43 2.15	11 0.9	17 0.74	0.05	2 0.05	0	179 2.93	19 0.40	13 0.57	13 0.15	0	0.1	0	227 207	153
9-25-64	--	8.0	360	56 41 2.15	23 12 0.99	19 6.83	0.05	2 0.05	0	185 3.03	19 0.40	11 0.31	7 0.11	0	0.1	0.04	212 202	152
2S/ 7W-9D 1 S 9- 3-64	--	7.9	750	56 2.79	50 4.11	25 1.03	0.65	2 0.65	0	316 5.21	45 0.94	44 1.24	51 0.62	0	0.1	0.15	486 430	345
2S/ 7W-10C 1 S 3- 9-64	--	7.7	997	35 117	51 30	14 46	1	1 2	0	63 318	11 68	15 89	10 60	0	0.1	0.06	567 630	416
9-25-64	--	7.8	760	47 100	36 46	16 39	0.06	1 3	0	52 328	13 67	25 51	11 60	0	0.1	0.45	576 734	430
2S/ 7W-10H 1 S 9-25-64	--	7.9	1000	57 125	29 36	14 34	0.05	2 0.05	0	541 330	13 65	64 84	1.65 10.2	0	0.1	0.00	612 576	467
2S/ 7W-10J 1 S 9- 2-64	--	8.0	650	62 5.44	22 1.97	15 1.36	0.05	1 0.05	0	470 4.70	11 1.02	23 2.06	14 1.23	0	0.2	0.10	612 610	371
2S/ 7W-10L 4 S 3- 9-64	--	7.6	1044	58 6.39	25 37	14 34	0.05	2 0.05	0	320 3.24	70 1.46	74 2.65	1.27 1.27	0	0.2	0.37	677 603	472

Y0100

SANTA ANA RIVER HYDRO UNIT

MIDDLE SANTA ANA R HYDRO SUBUNIT Y0100

Y0101

CHINO HYDRO SUBAREA

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Date sampled	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per million reactance value					Mineral constituents in parts per million								
					Calcium	Magne-sium	Sodium	Potas-sium	Carbon-ate	Bicar-bonate	Sulfate	Chlo-ride	Ni-trate	Fuc-ride	Bore-n	Sulf-co	Sulf-co	Fuc-ride	Ni-trate	Total hardness as CaCO ₃			
					Ca	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	S	F	NO ₃	NO ₃	NO ₃	NO ₃	NO ₃	
MIDDLE SANTA ANA R HYDRO SUBUNIT Y0101																							
CHINO HYDRO SUBAREA Y01B1																							
SANTA ANA RIVER HYDRO UNIT Y0100																							
2S/ 7W-10L 4 S 9-25-64		--	8.1	980	104 5.19 45	55 4.52 40	38 1.65 14	0	2 0.05	0	380 6.23 54	75 1.56 13	102 2.88 25	55 0.89 8	0.1	0.32	0.1	102 2.88 25	55 0.89 8	0.1	0.32	0.1	736 486
2S/ 7W-10M 1 S 10-23-63		--	8.0	943	106 5.29 53	40 3.29 33	30 1.30 13	2 0.05	2 1	0	320 5.24 52	44 0.92 9	77 2.17 22	103 1.66 17	0.3	0.03	0.3	77 2.17 22	103 1.66 17	0.3	0.03	0.3	584 429
5-12-64		--	7.7	582	67 3.34 54	23 1.89 31	20 0.87 14	2 0.05	2 1	0	212 3.47 57	24 0.50 8	40 1.13 19	58 0.94 16	0.3	0.01	0.3	40 1.13 19	58 0.94 16	0.3	0.01	0.3	363 262
2S/ 7W-11D 1 S 10-23-63		--	8.1	779	92 4.59 55	29 2.38 29	30 1.30 16	2 0.05	2 1	0	266 4.36 52	60 1.25 15	56 1.58 19	75 1.21 14	0.3	0.06	0.3	60 1.25 15	75 1.21 14	0.3	0.06	0.3	496 349
5-12-64		--	7.8	753	93 4.64 57	28 2.30 28	26 1.13 14	2 0.05	2 1	0	258 4.23 51	59 1.23 15	55 1.55 19	75 1.21 15	0.5	0.07	0.5	59 1.23 15	75 1.21 15	0.5	0.07	0.5	507 347
2S/ 7W-15A 1 S 10-23-63		--	8.2	337	42 2.10 56	8 0.66 18	22 0.96 25	2 0.05	2 1	12 0.40 11	178 2.92 77	12 0.25 7	6 0.17 4	35 0.06 2	0.2	0.04	0.2	12 0.25 7	35 0.06 2	0.2	0.04	0.2	209 138
2S/ 7W-15Q 1 S 5- 8-64		--	7.0	914	120 5.99 57	31 2.55 24	43 1.87 18	2 0.05	2 1	0	423 6.93 67	30 0.62 6	70 1.97 19	49 0.79 8	0.4	0.06	0.4	30 0.62 6	49 0.79 8	0.4	0.06	0.4	594 427
2S/ 7W-17D 1 S 5-12-64		--	7.9	570	72 3.59 59	20 1.64 27	19 0.83 14	2 0.05	2 1	0	245 4.02 64	31 0.65 10	22 0.62 10	60 0.97 15	0.3	0.01	0.3	31 0.65 10	60 0.97 15	0.3	0.01	0.3	378 262

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent reactance value				Mineral constituents in parts per million				
				Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total Dissolved Solids
SANTA ANA RIVER HYDRO UNIT Y6100																
MIDDLE SANTA ANA R HYDRO SUBUNIT Y01B0																
CHINO HYDRO SUBAREA Y01B1																
2S/ 7W-17L 1 S 10-23-63	--	7.7	766	98 4.89 58	27 2.22 26	26 1.22 15	3 0.08 1	0	312 5.11 60	41 0.85 10	34 0.76 11	96 1.58 17	0.3	0.03	501 483	356
5-12-64	--	7.6	760	56 4.79 57	33 2.47 29	26 1.13 13	3 0.08 1	0	303 4.97 58	45 0.94 11	36 1.02 12	103 1.66 19	0.5	0.02	542 488	363
2S/ 7W-20L 1 S 3- 9-64	--	8.0	463	56 2.79 57	14 1.15 24	20 0.87 18	2 0.05 1	0	215 3.52 75	17 0.35 7	20 0.76 12	16 0.26 6	0.1	0.04	281 251	197
2S/ 7W-21L 1 S 10-23-63	--	8.5	759	93 4.64 55	30 2.47 29	29 1.26 15	2 0.05 1	38 1.27 15	249 4.08 47	56 1.17 13	40 1.13 13	66 1.06 12	0.3	0.03	504 477	356
5- 8-64	--	7.5	593	72 3.59 54	23 1.83 29	25 1.09 16	2 0.05 1	0	276 4.52 69	36 0.75 11	23 0.65 10	40 0.65 10	0.5	0.04	405 357	274
2S/ 7W-22K 1 S 10-23-63	--	8.3	711	92 4.59 58	24 1.97 25	29 1.26 16	2 0.05 1	31 1.03 15	281 4.61 59	21 0.44 6	41 1.16 15	35 0.56 7	0.2	0.02	447 413	328
17-31-63	--	6.6	602	53 2.64	14 1.15	128 5.57	16 0.41	387	--	85 1.77	56 2.71	0.0	0.6	0.98	622	190
5- 8-64	--	7.6	666	1.9 5.44 55	34 2.80 29	35 1.52 15	2 0.05 1	0	430 7.05 72	32 0.67 7	49 1.36 14	42.5 0.69 7	0.3	0	572 515	412

TABLE E-1
 MINERAL ANALYSES OF GROUND WATER 1963/64
 SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million						parts per million equivalents per percent reactivity value					Mineral constituents in parts per million													
				Ca	Magnesium	Iron	Sum	Carbonate	Bicarbonate	Sulfate	Chloride	Fluoride	Sum	Ca	Mg	Fe	Na + K	Cl	F	Sum	Ca	Mg	Fe	Na + K	Cl	F	Sum	I.D.S. Evap. 180°C as CaCO ₃ Computed
25/ 7W-34 1-5 10-23-63	--	8.2	758	1.2	5.9	61	1.27	2.3	2.4	1.32	1.5	0.05	0.80	24	370	4.22	0.75	32	0.75	1.02	1.2	0.4	0.04	0.4	56	36	4.80	35.3
10-23-63	--	8.1	726	4.4	6.7	55	2.3	2.3	2.4	1.26	1.6	0.05	0.3	0	322	5.28	0.77	31	0.77	0.77	0.77	0.3	0.3	0.3	54	35	4.65	3.37
5- 8-64	--	7.5	731	4.3	8.8	53	2.71	3.3	3.4	1.13	1.4	0.05	0.3	0	334	5.47	0.85	26	0.85	1.10	1.1	0.4	0.4	0.4	55	37	4.96	3.55
25/ 7W-27A 1-5 10-23-63	--	7.4	774	5.0	8.9	53	2.3	2.3	2.4	2.0	2.4	0.05	0.3	0	520	6.52	0.81	39	0.81	1.21	1.1	0.3	0.3	0.3	36	43	5.05	4.15
5- 8-64	--	7.5	638	5.7	11.5	53	2.63	2.4	2.4	2.39	2.4	0.05	0.3	0	503	8.24	0.70	43	0.70	1.27	1.1	0.5	0.5	0.5	40	45	6.01	4.19
6-17-64	--	7.7	1080	5.0	8.7	70	2.59	2.4	2.4	2.43	2.0	0.05	0.3	0	516	8.46	1.12	54	1.12	1.77	1.4	0.1	0.1	0.1	60	62	6.94	4.91
25/ 7W-306 1-5 3- 9-64	--	8.0	485	5.7	7.4	58	1.37	2.4	2.4	0.87	1.7	0.05	0.3	0	232	3.89	0.62	30	0.62	0.56	1.1	0.2	0.2	0.2	11	13	2.83	2.05
9-15-64	--	8.2	519	6.5	11	62	3.24	1.7	1.7	1.00	1.9	0.05	0.3	0	239	3.92	0.56	27	0.56	0.57	1.1	0.2	0	0.2	3	11	2.71	2.07

Y-1100

SANTA ANA RIVER HYDRO UNIT

MIDDLE SANTA ANA R HYDRO SUBUNIT Y-1101
 CHINO HYDRO SUBAREA

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million				mineral constituents in					
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Fluoride	Iron	Copper	Zinc	Total hardness	
Date sampled				Co	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	F	Fe	Cu	Zn	CaCO ₃ Computed	
MIDDLE SANTA ANA R HYDRO SUBUNIT Y0180																	
CHINO HYDRO SUBUNIT Y0181																	
2S/ 7W-30H 1 S	--	7.0	649	84	16	35	2	0	276	60	17	0.1	0.00	--	--	900	276
5- 7-64				4.17 59	1.24 17	1.26 41	0.05 1		4.85 70	1.42 20	0.74 6	0.16 2				380	
2S/ 7W-31B 1 S	--	7.5	627	115	17	57	2	0	341	109	17	0.3	0.06	--	--	553	341
5- 8-64				5.74 61	1.37 11	2.57 27	0.05 1		5.59 59	2.27 24	1.10 14	0.44 5				532	
2S/ 7W-32K 3 S	--	6.0	351	15	41	54	1	0	149	21	13	0.7	0.37	--	--	220	206
10-24-63				0.75 12	3.37 52	2.35 36	0.03 1		2.44 71	0.44 13	0.37 11	0.18 3				230	
4- 8-64	--	8.1	310	16	3	50	1	0	140	23	12	0.3	0.36	--	--	206	193
				0.80 25	0.25 8	2.17 67	0.03 1		2.29 70	0.40 15	0.74 10	0.17 3				185	
2S/ 7W-34K 1 S	--	7.4	1745	104	65	66	3	0	444	497	162	0.4	0.03	--	--	1320	672
10-23-63				1.04 49	6.39 33	3.74 18	0.06 3		7.20 35	10.14 49	2.68 14	0.51 2				1210	
6- 8-64	--	7.6	1547	168	43	80	2	0	327	485	162	0.6	0.03	--	--	1253	761
				6.38 45	6.87 36	3.48 19	0.06 3		5.36 29	10.10 54	2.68 15	0.34 2				1103	
2S/ 7W-35J 1 S	--	8.2	646	41	42	97	2	0	387	59	85	0.1	0.14	--	--	972	304
5-17-64				2.00 27	0.33 37	0.64 41	0.05 1		6.34 61	1.22 12	2.40 23	0.44 4				950	
2S/ 7W-36D 1 S	--	8.1	712	82	14	58	2	0	317	36	41	0.3	0.03	--	--	434	276
10-24-63				4.05 53	1.07 14	2.52 33	0.05 1		5.20 69	6.79 10	1.16 13	0.19 3				414	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million							Mineral constituents in parts per million							
				Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Iron Fe	Manganese Mn	Copper Cu
MIDDLE SANTA ANA RIVER SUBUNIT Y01B1																		
CHINO HYDRO SUBAREA Y01B1																		
SANTA ANA RIVER HYDRO UNIT Y0100																		
2S/ 7W-36D 2 S 5- 8-64	--	7.4	749	84 4.19	19 1.56	57 2.46	2 0.05	0	322 5.28	49 1.02	55 1.67	29 0.67	0.4	0.04	--	494	288	288
2S/ 8W-14B 1 S 10-23-63	--	8.2	384	49 2.45	11 0.90	16 0.70	2 0.05	10 0.33	173 2.84	20 0.42	10 0.28	13 0.21	0.3	0.02	--	231	168	168
5-12-64	--	8.1	391	51 2.54	13 1.07	16 0.70	2 0.05	0	192 3.15	23 0.48	12 0.34	20 0.52	0.3	0.01	--	247	181	181
2S/ 8W-14H 1 S 1-23-64	--	7.7	309	33 1.65	12 0.99	16 0.70	2 0.05	0	166 2.72	19 0.40	6 0.17	1.9 0.05	0.3	0.01	--	179	132	132
5-12-64	--	8.0	333	43 2.15	17 0.82	14 0.61	1 0.03	0	173 2.84	19 0.40	6 0.17	9.0 0.15	0.5	0.03	--	228	149	149
2S/ 8W-23C 1 S 5-12-64	--	7.6	359	43 2.15	10 0.82	20 0.87	2 0.05	0	178 2.92	31 0.65	7 0.25	7.0 0.11	0.4	0.01	--	246	145	145
2S/ 8W-23C 4 S 3- 9-64	--	8.1	384	73 3.64	16 1.22	23 1.03	2 0.05	0	233 3.82	45 0.94	28 0.77	33 0.53	0.1	0.09	--	335	248	248
1-23-64	--	8.1	710	61 3.05	21 1.65	17 0.70	1 0.03	0	232 3.82	15 0.35	17 0.47	27 0.66	0.1	0.03	--	426	299	299
				58 2.9	23 1.75	18 0.85	1 0.03	0	67 1.17	16 0.35	17 0.47	6 0.16				403		

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million				Mineral constituents in parts per million					
				Calcium Co	Magne- sium Mg	Sodium Na	Potass- ium K	Carbon- ate CO ₃	Bicarb- onate HCO ₃	Sulfate SO ₄	Chlor- ide Cl	Hy- dro- sulf- ide HS	Flu- oride F	Iron Fe	Copper Cu	Zinc Zn	Barium Ba
25/ 8W-23M 1 S 3- 9-64	--	7.8	634	79	1.36	1.17	0.35	2	248	76	1.58	6.87	16	0.2	0.05	383	275
				3.74	59	11	1	1	4.06	23	0.26	372	372				
9-25-64	--	8.0	380	116	2.63	3.2	0.08	3	336	117	2.44	1.39	16	0.1	0.16	508	421
				5.79	57	26	1	1	5.51	57	0.26	538	538				
25/ 8W-23L 1 S 10-23-63	--	8.1	522	80	1.7	3.1	0.08	3	242	63	1.73	0.51	33	0.3	0.04	400	270
				3.92	59	21	1	1	3.97	59	0.53	384	384				
9-24-64	--	7.9	674	76	1.3	2.6	0.05	2	217	81	1.69	0.21	31	0.2	0.07	381	248
				3.69	63	11	1	1	3.56	57	0.50	356	356				
6-12-64	--	7.8	595	80	1.6	2.8	0.05	2	223	89	1.85	0.51	36	0.4	0.03	437	266
				3.92	61	19	1	1	3.65	55	0.58	374	374				
9-24-64	--	8.1	620	46	2.9	3.1	0.05	2	225	95	1.78	0.59	29	0.1	0.05	408	213
				2.30	41	34	1	1	3.69	55	0.67	356	356				
25/ 8W-25M 1 S 10-23-63	8	8.1	668	59	1.1	2.3	0.05	2	198	56	0.75	0.82	23	0.3	0.05	267	174
				2.74	60	12	1	1	3.25	66	0.08	263	263				
3- 6-64	8	8.0	800	61	1.0	2.0	0.05	2	204	35	0.73	0.73	6	0.1	0.05	344	174
				3.04	64	17	1	1	3.34	68	0.10	260	260				

Y0100

SANTA ANA RIVER HYDRO UNIT

MIDDLE SANTA ANA R HYDRO SUBUNIT Y0100

Y0101

CHINO HYDRO SUBAREA

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million				Mineral constituents in parts per million						
				Ca	Mg	Sodium	Chloride	Carbonate	Bicarbonate	Sulfate	Fluoride	Iron	Trace	Calcium	Magnesium	Sulfate	Fluoride	Iron
Date sampled				CO ₃	Mg	Na	K	SO ₄	HCO ₃	SO ₄	Cl	Fe	SiO ₂	CO ₂	CO ₂	CO ₂	CO ₂	
MIDDLE SANTA ANA R HYDRO SUBUNIT YOIRO																		
CHINO HYDRO SUBAREA																		
YO101																		
SANTA ANA RIVER HYDRO UNIT																		
YO100																		
25/ 8W-25M 1 S 5-12-64	--	8.0	446	57 2.84 60	11 0.20 19	21 0.91 19	2 0.05 1	0 0	202 3.31 69	36 0.75 16	24 0.68 14	5.5 0.09 2	0.5	0.03	--	291	--	187
9-24-64	--	8.1	480	49 2.45 44	24 1.97 35	25 1.09 20	2 0.05 1	0 0	225 3.69 67	39 0.87 15	31 0.87 16	6 0.10 2	0.1	0	--	302	--	221
25/ 8W-26C 2 S 3- 9-64	--	7.8	335	1.9 5.44 61	22 1.81 20	36 1.57 18	2 0.05 1	0 0	272 4.46 51	142 2.96 34	37 1.04 12	21 0.54 4	0.1	0.04	--	532	--	363
9-25-64	--	8.1	750	75 3.74 45	36 2.96 36	34 1.48 18	2 0.05 1	0 0	260 4.26 52	127 2.64 33	32 0.90 11	20 0.32 4	0.1	0.05	--	496	--	335
25/ 8W-26K 1 S 10-23-62	--	7.9	951	98 4.89 46	38 3.13 30	56 2.43 23	3 0.08 1	0 0	354 5.80 53	181 3.77 35	42 1.16 11	9.0 0.15 1	0.5	0.08	--	620	--	401
5-12-64	--	7.4	958	110 5.49 48	43 3.54 31	56 2.63 21	3 0.08 1	0 0	366 6.00 53	187 3.89 34	45 1.27 11	7.5 0.12 1	0.7	0.08	--	677	--	452
35/ 7W- 3A 1 S 10-24-63	--	8.1	810	103 5.14 57	28 2.30 26	35 1.52 17	2 0.05 1	0 0	347 5.69 63	90 1.87 21	39 1.10 12	19 0.31 3	0.4	0.07	--	528	--	372
6-17-64	--	8.4	800	53 2.64 29	59 4.85 53	37 1.61 16	2 0.05 1	5 0.17 2	330 5.41 59	96 2.00 22	44 1.24 14	18 0.29 3	0.2	0.11	--	536	--	375

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent reactance				Mineral constituents in parts per million					
				Calcium Co	Magne-sium Mg	Sodium Na	Potas-sium K	Carbon-ate CO ₃	Bicar-bonate HCO ₃	Sul-fate SO ₄	Phos-phate PO ₄	Nitrate NO ₃	Fluoride F	Iron Fe	Manganese Mn	Copper Cu	Zinc Zn
MIDDLE SANTA ANA R HYDRO SUBUNIT Y010																	
CHINO HYDRO SUBAREA Y01B1																	
3S/ 7W- 3N 1 S 5- 8-64	--	7.6	706	87 4.09 53	24 1.27 25	38 1.85 21	2 0.05 1	0	317 5.20 66	64 1.33 17	35 1.10 14	18.2 0.30 4	0.4	0.01	--	459 424	303
6-17-64	--	8.2	540	47 2.10 38	23 1.39 34	35 1.82 27	2 0.05 1	0	196 3.21 58	43 0.90 16	41 1.16 21	15 0.24 4	0.1	0.11	--	348 298	200
3S/ 7W- 3R 1 S 10-24-63	--	7.8	642	61 4.04 58	17 1.42 70	34 1.48 21	2 0.15 1	0	312 5.11 74	35 0.73 11	31 0.87 13	14 0.23 3	0.4	0	--	404 368	272
3S/ 7W- 4A 1 S 5- 8-64	--	8.0	672	87 4.34 60	15 1.23 17	38 1.65 23	2 0.05 1	0	286 4.69 63	65 1.35 18	40 1.13 15	19.0 0.31 4	0.4	0.01	--	434 407	270
3S/ 7W- 4D 1 S 5- 8-64	--	7.5	523	54 2.69 47	11 0.90 16	48 2.09 36	2 0.05 1	0	233 3.82 67	39 0.81 14	27 0.76 13	21 0.34 6	0.5	0.09	--	347 317	180
3S/ 7W- 4H 1 S 10-24-63	--	8.1	986	111 5.54 51	20 2.47 23	64 2.78 26	3 0.08 1	0	430 7.05 69	74 1.54 14	65 1.83 17	22 0.35 3	0.4	0.05	--	609 581	401
5- 8-64	--	7.4	917	128 6.39 66	9 0.74 4	57 2.48 26	3 0.08 1	0	402 6.59 63	78 1.62 16	64 1.80 17	25.5 0.41 4	0.4	0.02	--	609 563	357
3S/ 7W-10C 1 S 10-24-63	--	8.0	575	68 3.39 54	14 1.23 21	36 1.57 25	2 0.05 1	0	276 4.52 73	32 0.67 11	28 0.79 13	14 0.23 4	0.4	0.02	--	363 331	231

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent reactance value				Mineral constituents in parts per million					
				Calcium Mg	Magnesium	Sodium No	Potassium	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	I.D.S. Expressed as Computed	No. to Address C.O.C.S.
MIDDLE SANTA ANA R HYDRO SUBUNIT YO100																	
CHINO HYDRO SUBAREA YC1R1																	
3S/ 7W-10C 1 S 5- R-64	--	7.7	549	63 3.14 52	17 1.46 23	33 1.43 24	0.05	2	0	260 4.26 71	33 0.69 11	30 0.85 14	14 0.23 4	0.4	0.04	367 320	277
6-17-64	--	7.7	530	31 1.55 29	27 2.22 41	37 1.61 30	0.05	2	0	226 3.70 71	32 0.67 13	27 0.76 15	7 0.11 2	2.0	0.11	316 276	189
3S/ 7W-11L 2 S 5-28-64	7.8	7.9	860	30 1.55 15	67 5.51 57	61 2.65 27	3	0	272 4.46 45	112 2.33 24	107 3.02 31	2.1 0.03	2.1 0.04	0.2	0.31	600 542	351
3S/ 7W-11L 4 S 5-29-64	7.4	8.0	800	36 1.80 20	26 2.14 24	117 5.09 56	1	0	251 4.11 47	41 0.85 10	131 3.69 42	2.5 0.04	2.5 0.04	2.6	1.80	492 503	197
3S/ 7W-11M 4 S 5-21-64	6.9	7.7	1111	97 4.84 42	33 2.71 24	88 3.83 33	4	0	251 4.11 35	118 2.46 21	177 4.99 43	3 0.05	3 0.05	0.7	0.56	800 675	378
1N/ 6W-25K 1 S 3-31-64	--	7.8	341	52 2.59 69	9 0.74 27	9 0.39 10	2	0	184 3.02 83	27 0.56 15	6 0.17 4	2.0 0.03 1	2.0 0.03 1	0.6	0.04	219 198	167
CLAREMONT HEIGHTS HYDRO SUBAREA YC1R3																	
1N/ 8W-24L 1 S 3-31-64	--	7.5	469	71 3.54 71	12 0.99 26	19 0.83 9	2	0	248 4.06 76	46 0.76 18	7 0.20 4	9 0.15 3	9 0.15 3	0.6	0.06	287 280	227

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				Mineral constituents in parts per million				Mineral constituents in parts per million						
				Calcium	Magnesium	Sodium	potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Iron	Copper	Lead	zinc	
Date sampled				Mg	Mg	No	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	ppm	ppm	ppm	ppm	
SANTA ANA RIVER HYDRO UNIT Y0100																		
MIDDLE SANTA ANA R HYDRO SUBUNIT Y0100																		
CLAREMONT HEIGHTS HYDRO SUBAREA Y0103																		
1N/ 8W-34L 1 S 6-27-64	65	8.1	530	39	27	28	2	0	166	46	23	60	0.4	0.17	--	338	209	
				1.95	2.22	1.22	0.05		2.72	0.96	0.65	0.97				307		
				36	41	22	1		51	18	12	18						
CUCAMONGA HYDRO SUBAREA Y0104																		
1S/ 7W- 4B 1 S 4-10-64	--	8.0	323	43	8	18	2	0	184	13	6	3.7	0.3	0.01	--	220	141	
				2.15	0.66	0.78	0.05		3.02	0.27	0.23	0.06				186		
				59	18	21	1		84	8	6	2						
1N/ 7W-27R 1 S 4-10-64	--	8.0	325	42	8	19	2	0	187	14	9	4.0	0.2	0.01	--	190	138	
				2.10	0.66	0.83	0.05		3.06	0.29	0.25	0.06						
				58	18	23	1		84	8	7	2						
1N/ 7W-33A 1 S 3-21-64	--	7.6	399	44	12	20	2	0	132	35	10	55	0.4	0.01	--	267	160	
				2.20	0.99	0.87	0.05		2.16	0.73	0.28	0.89				243		
				54	24	21	1		53	18	7	22						
TEMESCAL HYDRO SUBAREA Y0105																		
3S/ 6W-18N 1 S 5-21-64	--	7.5	1900	179	52	180	6	0	475	197	298	40	0.6	0.42	35	1300	661	
				8.93	4.28	7.83	0.15		7.79	4.10	8.46	0.65				1222		
				42	20	37	1		37	20	40	3						
3S/ 6W-180 2 S 5-21-64	77	7.4	1397	114	44	126	2	0	310	76	258	50	0.6	0.28	40	890	466	
				5.69	3.62	5.48	0.05		5.08	1.58	7.28	0.81				863		
				38	24	37			34	11	49	5						

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million percent reactance value				Mineral constituents in parts per million					
				Calcium mg Co	Magnesium mg No	Sodium Potassium	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	I.D.S. Evap Residues Computed	Total Hardness	
3S/ 6W-286 1 S 10-15-63	--	7.7	1305	115	22	120	6	0	360	128	121	56	0.4	0.30	--	931	378
				5.74 44	1.81 14	5.22 46	0.15 1	5.92 46	2.66 21	3.41 26	0.90 7	746					
3S/ 6W-28H 1 S 5-28-64	70	8.6	1100	34	67	108	4	0	359	120	101	35	0.2	0.29	35	760	361
				1.70 14	5.91 46	4.70 39	0.10 1	5.88 50	2.50 21	2.85 24	0.56 5	681					
9-15-64	--	7.6	966	84	31	80	4	0	282	101	83	56	0.3	0.21	--	614	333
				4.19 41	2.67 24	3.48 34	0.10 1	4.62 46	2.10 21	2.34 23	0.90 9	577					
3S/ 6W-28L 1 S 3-9-64	--	7.6	1383	123	38	124	4	0	390	136	123	102	0.4	0.33	--	951	464
				6.14 42	3.13 21	5.39 37	0.13 1	6.39 45	2.83 20	3.47 24	1.65 12	842					
3S/ 6W-28M99 S 3-9-64	--	7.6	1383	130	35	123	4	0	403	137	126	100	0.4	0.33	--	914	469
				5.49 44	2.88 19	5.35 36	0.10 1	6.61 45	2.85 19	3.55 24	1.61 11	854					
9-24-64	--	7.9	1400	96	54	145	5	0	423	155	150	85	0.2	0.27	--	952	459
				4.74 31	4.44 28	6.74 42	0.13 1	6.93 44	3.23 20	4.23 27	1.37 9	907					
3S/ 6W-290 4 S 5-22-64	72	7.3	1883	177	43	205	5	0	483	192	284	78	0.8	0.38	29	1310	619
				8.83 41	3.54 17	8.91 42	0.13 1	7.92 37	4.00 19	8.01 38	1.26 6	1252					
3S/ 6W-30F 4 S 10-24-63	--	7.1	1792	161	48	186	4	--	415	211	280	75.8	--	0.30	--	1300	599
				8.03 40	3.75 26	8.09 40	0.10 1	6.80 33	4.39 22	7.90 39	1.22 6	1170					

Y0100

SANTA ANA RIVER HYDRO UNIT

MIDDLE SANTA ANA R HYDRO SUBUNIT Y01B0

TEMESCAL HYDRO SUBAREA

Y01B5

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				mineral constituents in parts per million									
				Calcium Mg	Magne- sium	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Nitrate NO ₃	Fluoride F	Boric acid B	Silica SiO ₂	Chloride Cl	Sulfate SO ₄	Nitrate NO ₃	Fluoride F	Boric acid B	Silica SiO ₂	Chloride Cl
35/ 6W-30F 4 S 4-24-64	--	7.0	1368	111 5.54 39	33 2.71 19	138 6.00 42	0.10 0.10 1	4	--	333 5.46 38	146 3.04 21	176 5.53 36	30.4 0.49 3	--	0.09	--	923	--	--	--	413
5-1-64	69	7.1	1368	1.6 5.29 37	35 2.88 20	135 5.87 42	0.10 0.10 1	4	0	322 5.28 37	138 2.87 20	197 5.56 39	39 0.63 4	0.7	0.28	37	920	0.7	0.28	37	409
35/ 6W-30N 1 S 5-28-64	--	8.0	1200	109 5.44 39	52 4.28 31	93 4.04 29	0.08 0.08 1	3	0	342 5.61 41	180 3.75 27	130 3.61 27	49 0.79 6	0.4	0.20	22	816	0.4	0.20	22	486
35/ 6W-30O 1 S 5-28-64	70	7.6	1300	161 8.3 51	19 1.56 10	140 6.09 39	0.10 0.10 1	4	0	423 6.93 45	157 3.27 21	156 4.40 28	58 0.94 6	0.4	0.35	22	888	0.4	0.35	22	480
35/ 6W-31O 1 S 5-28-64	--	7.7	1000	90 4.49 42	33 2.71 25	81 3.52 33	0.08 0.08 1	3	0	250 4.10 38	119 2.48 23	122 3.44 32	53 0.85 8	0.2	0.17	22	672	0.2	0.17	22	360
35/ 6W-32A 1 S 5-28-64	--	7.6	1500	46 2.30 13	114 9.38 54	125 5.44 32	0.13 0.13 1	5	0	413 6.77 40	163 3.39 20	212 5.98 35	57 0.92 5	0.2	0.26	30	1034	0.2	0.26	30	584
35/ 7W-11P 2 S 5-22-64	--	8.5	860	23 1.15 12	8 0.66 7	170 7.39 80	0.03 0.03 1	1	0	197 3.23 36	39 0.81 9	168 4.74 53	4.9 0.08 1	3.0	4.50	21	516	3.0	4.50	21	91
35/ 7W-13G 2 S 5-21-64	--	7.2	1029	70 3.49 33	45 3.7 36	74 3.22 31	0.10 0.10 1	4	0	176 2.88 28	52 1.08 11	216 6.09 60	8.0 0.13 1	0.5	0.10	31	625	0.5	0.10	31	360

Y0100

SANTA ANA RIVER HYDRO UNIT

MIDDLE SANTA ANA R HYDRO SUBUNIT Y0100

TEXAS HYDRO SUBAREA

Y01R5

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million						Mineral constituents in parts per million							
				Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Bromine Br	Sulfate SO ₄	Iron Fe	Copper Cu
3S/ 7W-140 1 S 5-29-64	--	8.5	1034	43	8	178	3	24	246	61	154	7.0	1.8	2.70	29	635	141
				2.15 20	0.66 6	7.74 73	0.08 1	0.80 8	4.03 38	1.27 12	4.34 41	0.11 1	632				
3S/ 7W-14J 2 S 5-28-64	6.9	7.3	1020	22	71	80	3	0	361	57	107	14	0.6	0.17	28	712	347
				1.10 10	5.84 56	3.48 33	0.08 1	5.92 57	1.19 11	3.02 29	0.23 2	560					
3S/ 7W-21N 1 S 3-6-64	--	8.4	1081	122	46	50	2	16	251	255	54	34	0.6	0.18	--	757	494
				6.09 50	3.78 31	2.17 18	0.05 4	4.11 34	5.31 44	1.52 13	0.55 5	703					
5-22-64	--	7.9	954	95	46	51	2	0	234	259	48	30	0.4	0.12	29	715	426
				4.74 44	3.78 35	2.22 21	0.05 4	3.84 35	5.39 49	1.35 12	0.48 4	676					
9-25-64	--	7.8	1020	90	64	53	2	0	303	255	53	29	0.2	0.11	--	764	488
				4.49 37	5.26 43	2.30 19	0.05 1	4.97 41	5.31 43	1.49 12	0.47 4	695					
3S/ 7W-22A 1 S 5-21-64	--	6.9	2016	190	52	200	10	0	468	255	316	16	0.5	0.96	32	1360	689
				9.48 42	4.28 19	8.70 38	0.26 1	7.67 35	5.31 24	8.91 40	0.26 1	1303					
3S/ 7W-22A 4 S 10-25-63	--	6.7	2335	240	52	234	7	--	557	331	353	23.7	--	0.40	--	1766	814
				11.98 45	4.28 16	10.17 38	0.18 1	9.13 35	6.89 26	9.95 38	0.38 1	1515					
4-24-64	--	7.1	1629	144	33	176	17	--	379	232	232	10.3	--	0.75	--	1081	495
				7.19 40	2.71 15	7.65 43	0.43 2	6.21 35	4.83 27	6.54 37	0.17 1	1031					

Y0100

SANTA ANA RIVER HYDRO UNIT

MIDDLE SANTA ANA R HYDRO SUBUNIT Y018U

Y0185

TEMESCAL HYDRO SUBAREA

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				mineral constituents in parts per million					
				Calcium mg	Magnesium mg	Sodium mg	Potassium mg	Carbonate mg	Bicarbonate mg	Sulfate mg	Chloride mg	Fluoride mg	Hardness mg/l	Evap Residue mg/l	TDS Computed mg/l	Mineral constituents in parts per million	
Date sampled				Co	Mg	No	K	Ca	Mg	SO ₄	SO ₄	Cl	F	Hardness mg/l	Evap Residue mg/l	TDS Computed mg/l	Mineral constituents in parts per million
SANTA ANA RIVER HYDRO UNIT Y0100																	
MIDDLE SANTA ANA R HYDRO SUBUNIT Y01R1																	
TEMESCAL HYDRO SUBAREA Y01B5																	
3S/ 7W-22A 4 S 5-21-64	70	7.4	1686	160 7.98 43	31 2.55 14	172 7.48 41	16 0.41 2	0	350 6.39 35	234 4.87 26	245 6.91 37	16 0.26 1	0.4	1.06	28	1100	527
3S/ 7W-22G 2 S 3- 9-64	--	7.3	1664	160 7.98 46	43 3.54 27	136 5.21 34	4 0.10 1	0	420 6.88 40	179 3.73 21	216 6.09 35	43 0.69 4	0.3	0.36	--	1075	576
5-29-64	68	7.7	1500	81 4.04 22	85 6.99 39	160 6.96 38	4 0.10 1	0	434 7.11 40	187 3.89 22	225 6.35 36	30 0.48 3	0.2	0.55	22	1092	552
9-24-64	--	8.2	1460	102 5.09 31	56 4.61 28	155 6.74 41	4 0.10 1	0	374 6.13 38	180 3.75 23	209 5.89 36	34 0.55 3	0.2	0.36	--	976	485
3S/ 7W-22H 1 S 10-24-63	--	6.9	2332	246 12.28 45	60 4.92 18	221 9.61 35	10 0.26 1	--	620 10.16 38	283 5.89 22	367 10.35 39	18.9 0.30 1	--	0.27	--	1667	861
4-24-64	--	7.1	2342	245 12.27 46	55 4.52 17	215 9.35 36	9 0.23 1	--	640 10.49 39	284 5.91 22	359 10.12 38	13.6 0.22 1	--	0.71	--	1550	838
5-21-64	70	7.1	2300	237 11.83 44	63 5.18 19	215 9.35 35	10 0.26 1	0	622 10.19 38	292 6.08 23	358 10.10 38	15 0.24 1	0.4	0.96	32	1630	851
3S/ 7W-22J 4 S 10-24-63	--	7.3	1956	160 7.98 48	42 3.45 21	114 4.96 30	3 0.08 1	--	400 6.56 40	170 3.96 24	179 5.05 31	49.0 0.79 5	--	--	--	1310	572

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				parts per million value				Mineral constituents in parts per million			
				Calcium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Iron B	Copper S	Zinc Co	Hardness Exp. 105°C Comp. 105°C	Calcium Ca	Sulfate S	Chloride Cl
35/ 7W-230 2 5 4-24-64	--	7.3	1878	165	34	17	--	445	246	250	13.6	--	0.68	1172	556				
				8.23	2.80	7.74	0.43	7.29	5.12	7.05	0.22	1143							
5-21-64	66	7.5	1751	143	40	18	0	403	249	260	?	0.5	1.08	522					
				7.14	3.29	8.04	0.46	6.61	5.18	7.33	0.03	1124							
35/ 7W-23J 4 5 10-24-63	--	7.0	1893	178	43	194	8	485	211	291	17.6	--	0.50	1300	621				
				8.88	3.54	8.44	0.20	7.95	4.35	8.21	0.28	1182							
4-24-64	--	7.1	1850	173	44	185	6	483	186	299	22.4	--	0.32	1169	605				
				8.48	3.62	8.04	0.15	7.92	3.87	8.43	0.36	1150							
5-21-64	71	6.9	1859	166	44	180	10	456	186	293	33	0.5	0.72	1290	595				
				8.28	3.62	7.83	0.26	7.47	3.67	8.26	0.53	1170							
35/ 7W-23K 1 5 10-24-63	--	7.0	1704	159	39	175	5	452	192	233	33.9	--	0.40	1146	547				
				7.23	3.21	7.61	0.13	7.41	4.00	6.57	0.55	1060							
4-24-64	--	7.3	1652	147	37	155	5	452	166	212	38.7	--	--	1168	519				
				7.34	3.24	6.74	0.13	7.41	3.46	5.98	0.62	983							
5-21-64	--	7.0	1553	128	39	154	5	439	163	210	39	0.5	0.66	1050	505				
				6.89	3.21	6.71	0.13	7.21	3.39	5.92	0.63	997							

Y0100

SANTA ANA RIVER HYDRO UNIT

MIDDLE SANTA ANA R HYDRO SUBUNIT Y01B0

TEMESCAL HYDRO SUBAREA

Y01B5

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				Mineral constituents in parts per million				Mineral constituents in parts per million						
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	Total Evap 180°C as Evap 105°C as CaCl ₂	Hardness as CaCl ₂	
Date sampled				Co	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂	Computed	CaCl ₂	
MIDDLE SANTA ANA R HYDRO SUBUNIT YO1B0																		
TEMESCAL HYDRO SUBAREA YO1B5																		
35/ 7W-23M 1 S	69	7.1	1590	138	43	154	5	0	434	174	218	24	0.4	0.96	31	1025	522	
5-22-64				6.82	3.56	6.70	0.13	5	7.11	3.62	6.15	0.39				1002		
				4.0	21	39	1	1	41	21	36	2						
35/ 7W-24C 5 S	--	7.6	845	57	24	93	4	0	166	39	176	22	0.9	0.25	46	615	241	
5-29-64				2.84	1.97	4.04	0.10	2.72	2.81	0.81	4.96	0.35				544		
				3.2	22	45	1	1	31	9	56	4						
35/ 7W-24D 2 S	--	7.5	1250	100	38	108	5	0	249	67	242	26	0.9	0.22	37	815	406	
5-29-64				4.99	3.13	4.70	0.13	4.08	4.08	1.39	6.82	0.42				747		
				3.9	24	36	1	1	32	11	54	3						
35/ 7W-24F 1 S	--	7.4	1230	107	29	108	4	0	254	81	228	16	0.7	0.36	32	790	386	
5-29-64				5.34	2.38	4.70	0.10	4.16	4.16	1.69	6.43	0.26				731		
				4.3	19	38	1	1	33	13	51	2						
9-16-64	--	7.5	1246	100	31	105	4	0	239	72	225	20	0.3	0.36	--	751	377	
				4.99	2.55	4.57	0.10	3.92	3.92	1.50	6.35	0.32				675		
				4.1	21	37	1	1	32	12	53	3						
35/ 7W-24G 2 S	--	7.4	1832	149	51	187	7	0	378	204	306	28	0.5	0.82	32	1200	582	
5-29-64				7.44	4.19	8.13	0.18	6.20	6.20	4.25	8.63	0.45				1151		
				3.7	22	41	1	1	32	22	44	2						
35/ 7W-24O 3 S	69	8.0	1900	40	135	197	6	0	484	205	322	15	0.2	0.48	29	1350	656	
5-29-64				2.9	11.1	8.57	0.15	7.93	7.93	4.27	9.08	0.24				1188		
				9	51	39	1	1	37	20	42	1						
35/ 7W-24Q 4 S	68	7.7	1900	37	128	190	5	0	462	198	300	35	0.2	0.40	29	1282	619	
5-28-64				1.85	10.53	8.26	0.13	7.57	7.57	4.12	8.46	0.56				1150		
				9	51	40	1	1	37	20	41	3						

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in				parts per million equivalents per million percent reactance value				Mineral constituents in parts per million						
				Calcium Co	Magnesium Mg	Sodium No	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Barium B	Silica SiO ₂	Total Suspended Solids TSS	Total Hardness CaCO ₃	
MIDDLE SANTA ANA R HYDRO SUBUNIT Y0100																		
TEMESCAL HYDRO SUBAREA Y01B5																		
3S/ 7W-25A 3 S 10-24-63	--	6.8	2196	218 10.88 42	5.10 2.0	221 9.61 37	0.15 0.15	6 1	--	579 9.49 37	264 5.50 22	340 9.59 3	53.2 0.86	--	0.24	--	1626 1449	800
4-24-64	--	6.9	1791	154 7.68 39	4.9 4.03 21	179 7.78 40	0.15 0.15	6 1	--	467 7.65 39	206 4.29 22	250 7.05 36	40.5 0.65 3	--	--	--	1092 1114	586
5-21-64	73	7.4	1712	149 7.44 40	4.5 3.70 20	170 7.39 40	0.15 0.15	6 1	0	437 7.16 38	191 3.98 21	244 6.88 37	50 0.81 4	0.5	0.70	35	1180 1106	557
3S/ 7W-25J 1 S 5-22-64	69	7.8	1287	134 6.69 46	3.6 2.96 20	108 4.70 33	0.10 0.10	4 1	0	381 6.24 44	156 3.25 23	133 3.75 27	53 0.85 6	0.6	0.22	32	870 844	483
3S/ 7W-25M 1 S 9-16-64	--	8.0	1048	102 5.09 47	2.8 2.30 21	76 3.30 31	3 0.08	3 1	0	230 3.77 36	113 2.35 22	120 3.38 32	64 1.03 10	0.6	0.10	32	677 652	370
3S/ 7W-25M 2 S 5-22-64	74	7.4	1066	111 5.54 48	2.9 2.38 21	82 3.57 31	3 0.08	3 1	0	271 4.44 39	122 2.54 22	117 3.30 29	70 1.13 10	0.6	0.14	30	690 698	396
3S/ 7W-26G 1 S 5-29-64	--	7.8	960	73 3.64 34	4.5 3.70 34	77 3.35 31	3 0.08	3 1	0	255 4.18 39	103 2.14 20	114 3.21 30	66 1.06 10	0.6	0.17	22	666 629	367
3S/ 7W-26K 1 S 5-28-64	74	8.0	900	82 4.9 45	3.9 3.21 31	68 2.96 29	2 0.05	2 1	0	218 3.57 35	122 2.54 25	114 3.21 32	53 0.85 8	0.2	0.08	20	676 607	365

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million percent reactance value				Mineral constituents in parts per million						
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fluo- ride F	Boron B	Sili- ca SiO ₂	IDS Exp. 1963 Exp. 1964 Compd. Coll.	Total Hardness Calc.	
Date sampled																		
SANTA ANA RIVER HYDRO UNIT Y0100																		
MIDDLE SANTA ANA R HYDRO SUBUNIT Y0100																		
TEMESCAL HYDRO SUBAREA Y01B5																		
3S/ 7W-27G 1 S 5-27-64	--	7.5	1096	141 7.04 57	2.96 24	36 19	2.30 0.05	0	276 37	161 27	3.35 23	101 23	92 1.48 12	0.5	0.06	28	780 750	500
3S/ 7W-27G 2 S 5-28-64	--	8.0	940	90 4.49 40	4.6 3.78 34	64 2.78 25	2 0.05	0	231 3.79 34	189 3.93 36	85 2.40 22	85 2.40 22	57 0.92 8	0.2	0.17	21	720 668	414
3S/ 7W-27H 1 S 5-28-64	--	7.7	1100	134 6.69 54	4.0 3.29 26	56 2.43 20	2 0.05	0	285 4.67 38	165 3.44 28	104 2.73 24	104 2.73 24	78 1.26 10	0.1	0.12	20	798 739	499
9-16-64	--	7.8	1153	138 6.89 55	4.0 3.29 26	52 2.26 18	3 0.08	0	287 4.70 38	158 3.29 26	103 2.90 23	103 2.90 23	100 1.61 13	0.1	0.08	--	764 735	509
3S/ 7W-27H 2 S 5-28-64	--	7.8	631	43 2.15 34	2.4 1.97 31	48 2.09 33	3 0.08	0	73 1.20 20	113 2.35 41	89 2.51 41	89 2.51 41	4.0 0.06 1	0.3	0.10	5	380 365	206
3S/ 7W-28B 1 S 3-9-64	--	7.6	980	113 5.64 53	3.7 3.04 29	44 1.91 18	2 0.05	0	259 4.25 40	193 4.02 38	64 1.80 17	64 1.80 17	31 0.50 5	0.3	0.11	--	694 612	434
5-20-64	--	7.7	860	67 3.34 31	6.4 5.26 49	47 2.04 19	1 0.03	0	264 4.33 41	188 3.91 37	66 1.86 18	66 1.86 18	31 0.50 5	0.2	0.10	21	678 615	430
9-25-64	--	8.0	960	115 5.74 53	3.6 2.96 27	47 2.04 19	2 0.05	0	258 4.23 40	197 4.10 38	67 1.89 18	67 1.89 18	30 0.48 4	0.2	0.09	--	702 621	435

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million reactance value				Mineral constituents in parts per million					
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Bicarb- onate HCO ₃	Sulfate SO ₄	Chlor- ide Cl	Ni- trate NO ₃	Fluo- ride F	Boron B	Sili- ca SiO ₂	Iron Fe	Mn Mn	Cu Cu
MIDDLE SANTA ANA R HYDRO SUBUNIT Y0100																	
TEMPESCAL HYDRO SUBAREA Y01B5																	
3S/ 7W-35L 1 S 9-15-64	--	8.1	999	113 5.64 55	29 1.38 23	52 2.26 22	2 0.05	0	247 4.05 39	139 2.89 28	81 2.28 22	69 1.11 11	0.4	0.04	30	687 637	401
4S/ 6W- 8H 1 S 9-18-64	--	7.0	1204	134 6.69 54	27 1.81 15	90 3.91 31	2 0.05	0	273 4.47 36	179 3.73 30	107 3.02 24	80 1.29 10	0.1	0.11	--	790 748	425
4S/ 6W- 9C 1 S 9-18-64	--	8.1	1400	162 5.09 32	84 6.91 44	85 3.76 23	2 0.05	0	316 5.18 33	159 3.31 21	234 6.66 42	27 0.44 3	0.1	0.12	--	716 849	600
4S/ 7W- 3F 1 S 9-16-64	--	7.8	1247	131 6.54 45	68 5.59 39	52 2.26 16	1 0.03	0	301 4.93 35	324 6.75 48	59 1.66 12	48 0.77 5	0.5	0.14	26	994 858	607
ARLINGTON HYDRO SUBAREA Y01B6																	
3S/ 5W- 8B 1 S 9-15-64	7J	8.0	1530	139 6.94 42	43 3.54 21	141 6.13 37	4 0.10 1	0	397 6.51 39	167 3.48 21	151 4.26 26	144 2.32 14	0.6	0.23	--	1042 985	524
3S/ 5W-15A 1 S 9-15-64	--	7.5	1672	146 7.29 40	74 6.09 34	105 4.57 25	6 0.15 1	0	382 6.26 35	165 3.44 19	204 5.75 32	151 2.44 14	0.5	0.28	55	1110 1095	670
3S/ 5W-17K 1 S 9-15-64	72	7.9	1158	80 3.99 33	37 3.04 25	116 5.04 41	4 0.10 1	0	321 5.26 44	115 2.39 20	89 2.51 21	114 1.84 15	0.5	0.20	40	763 754	352

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Date sampled	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent				mineral constituents in parts per million				Total Hardness as CaCO ₃		
					Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Sulfur dioxide		I.D.S. Evap. Residue Computed	
					Ca	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SO ₂			
SANTA ANA RIVER HYDRO UNIT Y0100																			
MIDDLE SANTA ANA R. HYDRO SUBUNIT Y01R6																			
ARLINGTON HYDRO SUBAREA																			
3S/ 6W-15R 1 S 9-15-64		70	7.9	1317	114 5.69 40	35 2.88 20	125 5.44 39	0.10	4	0	362 5.93 42	130 2.71 19	133 3.75 27	106 1.71 12	0.6	0.23	--	894 826	429
3S/ 6W-22L 1 S 9-15-64		84	8.0	1293	83 4.14 30	39 3.21 24	141 6.13 45	5	0	293 4.80 36	147 3.06 23	145 4.09 30	91 1.47 11	0.8	0.27	--	876 796	368	
3S/ 6W-24P 1 S 9-15-64		--	8.0	1309	110 5.49 38	49 4.03 28	111 4.83 33	3	0	343 5.57 39	170 3.54 25	99 2.79 20	142 2.29 16	0.4	0.25	--	975 852	476	
RIVERSIDE HYDRO SUBAREA Y01B7																			
1S/ 4W-19E 1 S 3-17-64		--	7.8	287	--	--	--	--	0	99 1.67	34 0.71	10 0.28	--	--	--	--	--	63	
6- B-64		--	7.9	252	24 1.20 44	6 0.49 18	21 0.91 34	4	0	137 2.25 84	9 0.19 7	9 0.25 9	0.0	0.3	0.02	4	140 145	85	
1S/ 4W-19K 1 S 3-16-64		--	7.8	455	--	--	--	--	0	163 2.67	46 0.96	9 0.25	--	--	--	--	--	177	
6- B-64		--	7.6	344	46 2.20 66	4 0.23 9	18 0.78 22	4	0	114 1.87 53	54 1.17 31	11 0.31 9	16 0.26 7	0.4	0.02	9	203 218	132	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million										Mineral constituents in parts per million				
				Calcium Co	Magne- sium Mg	Sodium No	Potas- sium K	Carbon- dite CO ₂	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fue- ride F	Borax B	Sul- fo- SiO ₂	T.C.S. to Exp. 0.05°C	Total Inerts Coals	
MIDDLE SANTA ANA R. HYDRO SUBUNIT Y01B.																		
RIVERSIDE HYDRO SUBAREA Y01B7																		
SANTA ANA RIVER HYDRO UNIT Y01U0																		
1S/ 4W-28L 2 S 6-25-64	68	8.0	600	53 2.64 41	12 0.99 15	62 2.17 42	3 0.08 1	0	0	229 3.75 60	49 1.02 16	42 1.18 19	18 0.29 5	0.9	0.12	20	360 373	182
9-30-64	--	7.6	707	--	--	--	--	--	--	--	--	49 1.38	21 0.34	--	--	--	--	--
1S/ 4W-28N 5 S 6-25-64	67	8.1	700	47 2.35 32	32 2.63 36	50 2.17 30	4 0.10 1	0	0	223 3.65 50	80 1.67 23	56 1.58 22	25 0.40 5	0.7	0.19	16	430 420	249
1S/ 4W-29H 1 S 3-11-64	--	7.4	742	61 3.04 40	14 1.15 15	74 3.22 43	4 0.10 1	0	0	238 3.90 52	70 1.46 20	62 1.75 23	21 0.34 5	0.8	0.26	--	444 424	210
1S/ 4W-29K 9 S 7-27-64	--	7.0	806	72 3.59 43	18 1.48 18	74 3.22 38	6 0.15 2	0	0	156 2.56 31	140 2.91 35	97 2.74 33	1.0 0.02	0.3	0.46	8	520 493	254
1S/ 4W-30D 6 S 3-11-64	--	7.6	501	66 3.29 65	11 0.90 18	18 0.78 15	3 0.08 2	0	0	196 3.21 62	46 0.96 18	13 0.37 7	41 0.66 13	0.3	0	--	321 295	210
1S/ 4W-30K 1 S 7-7-64	--	7.3	1236	173 8.63 62	31 2.55 18	59 2.57 19	5 0.13 1	0	0	400 6.56 47	165 3.44 25	113 3.19 23	50 0.81 6	0.3	0.18	27	850 820	559
1S/ 4W-30L 4 S 3-10-64	--	7.7	1306	176 8.78 63	27 2.22 16	65 2.83 20	0 0.13 1	0	0	429 7.03 51	107 2.23 16	107 3.02 22	88 1.42 10	0.1	1.00	--	839 787	550

TABLE E-1
 MINERAL ANALYSES OF GROUND WATER 1963/64
 SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Date sampled	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million										Mineral constituents in parts per million												
					Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fluo- ride F	Boron B	Sil- ico SiO ₂	I.D.S. Evap 180°C as Computed CaCO ₃	Total hardness as CaCO ₃									
MIDDLE SANTA ANA R HYDRO SUBUNIT Y0180					SANTA ANA RIVER HYDRO UNIT Y0100																						
RIVERSIDE HYDRO SUBAREA Y0187																											
15/ 4W-32E12 S 2-25-64		--	7.2	831	--	--	--	--	--	24 0.39	--	84 2.37	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
2-25-64		--	7.3	824	--	--	--	--	--	226 3.70	--	84 2.37	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
5- 7-64		--	7.3	810	65 3.24	16 1.32	90 3.91	0 0.13	5 0.13	0 4.02	245 1.69	81 2.51	89 2.51	18 0.29	0.29 3	0.8	0.46	32	545	228							
5- 7-64		70	7.3	799	38 63	15 13	45 92	2 6	2 0.15	47 3.93	20 1.69	20 2.45	29 2.45	3 0.29	3	0.8	0.48	33	518	211							
5- 7-64		70	7.3	801	38 60	15 14	48 92	2 6	2 0.15	47 3.93	20 1.69	20 2.45	29 2.45	3 0.29	3	0.9	0.48	33	512	207							
5- 7-64		69	7.2	801	36 60	14 1.15	49 4.00	2 0.15	2 0.15	47 3.93	20 1.69	20 2.45	29 2.45	3 0.26	3	0.8	0.50	32	540	207							
5- 7-64		65	7.3	799	36 60	14 1.15	49 4.09	2 0.15	2 0.15	47 3.93	20 1.69	20 2.45	29 2.45	3 0.26	3	0.8	0.46	33	509	207							
6-26-64		69	7.5	801	39 66	11 0.70	49 4.09	2 0.13	2 0.13	50 4.26	20 1.69	20 2.34	27 2.34	3 0.24	3	0.9	0.50	32	520	210							

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million percent reactance value				Mineral constituents in parts per million			
				Calcium mg	Magnesium mg	Sodium No	Barium mg	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Free Nitrate NO ₃	Fluoride F	Barium mg	Calcium mg
MIDDLE SANTA ANA RIVER SUBUNIT Y01B0															
RIVERLAIDE HYUKO SUBAREA Y01B7															
1S/ 5W-23C 1 S 3-18-64	--	7.49	3860	--	--	--	0	189	3.10	37	10	--	--	--	84
4- 9-64	--	7.44	4004	38 1.090	6 0.49	35 1.32	4 0.10	0	142	2.33	21 0.59	44 0.92	21 0.59	3 0.05	230 221
6- 8-64	--	7.88	272	47 1.30	12 0.33	38 1.30	2 0.06	0	105	1.72	26 0.58	24 0.58	16 0.45	1 0.02	1444 158
1S/ 5W-23F 1 S 3-18-64	--	7.7	434	37 1.090	12 0.33	40 1.30	3 0.06	0	192	3.15	21 0.42	54 1.12	15 0.42	--	148
4- 9-64	--	7.4	616	69 3.44	13 1.07	32 1.39	2 0.05	0	132	2.16	97 2.02	46 1.50	23 0.37	0.1	383 348
6- 8-64	--	7.3	638	58 4.29	18 1.07	23 1.22	1 0.08	0	179	2.94	35 2.17	36 1.02	6 0.53	0.3	409 405
1S/ 5W-24E 1 S 3-11-64	--	8.2	559	64 4.29	16 1.07	18 0.66	1 0.05	0	181	2.97	33 0.37	15 0.29	10 0.16	0.2	237 200
1S/ 5W-24O 1 S 3-11-64	--	7.7	420	68 4.29	17 0.42	14 0.65	1 0.05	0	144	3.02	10 0.67	10 0.34	29 0.40	0	769 742

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million reactance value				Mineral constituents in parts per million						
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Fluoride F	Barium Ba	Calcium Ca	Strontium Sr	Total Equiv. 100°C hardness Computed	Total Equiv. 100°C hardness Observed	
MIDDLE SANTA ANA R HYDRO SUBUNIT Y018U																		
RIVERBEND HYDRO SUBAREA Y01B7																		
SANTA ANA RIVER HYDRO UNIT Y01G0																		
1S/ 5W-25B 2 3-11-64	--	7.0	421	36 2,779 64	11 11 21	15 0.05 15	0.05 1	2 1	1 1	1 1	1,22 3,115 71	27 0.27 15	12 0.34 15	25 0.25 15	0 0 0	0 0 0	261 248	185
9-1-64	--	7.03	177	51 2,554 63	11 11 22	13 0.27 14	0.27 0.05 1	2 1	2 1	0 1	1,24 3,557 73	26 0.54 13	7 1.0 5	22 0.52 5	0 0 0	0 0 0	261 223	172
1S/ 5W-25E 1 3-11-64	--	7.0	447	60 2,893 66	11 11 20	14 0.61 13	0.61 0.05 1	2 1	2 1	0 1	1,99 3,276 71	27 0.50 13	12 0.54 7	26 0.44 7	0 0 0	0 0 0	270 257	198
1S/ 5W-25L 2 11-19-63	--	7.1	649	73 3,664 54	14 11 17	14 1.07 20	0.10 0.05 1	4 1	4 1	0 1	2,77 4,270 75	14 0.31 5	25 0.75 14	25 0.62 6	0 0 0	0 0 0	363 356	243
6-28-64	--	7.06	604	73 3,664 54	13 11 16	13 1.26 27	0.17 0.17 1	9 1	9 1	0 1	2,75 4,444 73	11 0.27 10	17 0.76 12	22 0.52 5	0 0 0	0 0 0	400 373	276
7-1-64	--	7.04	666	--	--	--	--	--	--	--	--	--	0.71	0.31	--	--	--	--
SANTA ANA R HYDRO SUBUNIT Y018U																		
1S/ 5W-25R 1 11-22-63	--	7.0	1,444	47 3,444 46	11 11 21	16 0.26 34	0.26 0.05 1	5 1	5 1	0 1	3,13 6,111 65	11.8 2.06 19	1.0 0.8 2	27 1.0 11	0 0 0	0 0 0	411 394	306
8-1-64	--	7.1	1,331	11 5,074 46	17 11 11	17 4.22 34	1.13 1.13 1	4 1	4 1	0 1	3,68 5,074 52	15.0 2.71 26	1.0 0.8 2	24 1.0 11	0 0 0	0 0 0	374 354	311

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million										Mineral constituents in parts per million			
				Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total Dissolved Solids as CaCO ₃	Total Hardness as CaCO ₃
MIDDLE SANTA ANA R. HYDRO SUBUNIT Y0100																	
RIVERSIDE HYDRO SUBAREA Y01B7																	
1S/ 5W-25R 1 S 6-25-64	63	7.5	1373	118 5.89 43	18 1.48 11	113 4.71 35	61 1.56 11	0	230 3.77 27	182 3.79 28	184 5.19 36	62 1.00 7	0.6	0.23	17	910 869	369
9-30-64	68	7.6	1374	--	--	--	--	--	--	--	146 4.12	38 0.61	--	--	--	--	--
1S/ 5W-25R 4 S 6-26-64	69	7.7	969	100 4.99 50	16 1.32 13	76 3.30 33	16 0.41 4	0	259 4.25 42	104 2.17 22	97 2.74 27	56 0.90 y	0.4	0.22	19	640 612	316
1S/ 5W-27J 1 S 3-17-64	--	7.3	511	--	--	--	--	0	120 1.97	65 1.35	22 0.62	--	--	--	--	--	157
4- 6-64	64	7.4	781	113 5.64 72	14 1.15 15	22 0.96 12	4 0.10 1	0	209 3.28 43	71 1.48 19	42 1.18 15	110 1.77 23	0.1	1.45	--	552 476	340
1S/ 5W-28H 1 S 3-17-64	--	6.8	422	--	--	--	--	0	132 2.16	59 1.23	13 0.37	--	--	--	--	--	145
4- 9-64	--	7.2	368	25 1.25 57	19 0.82 24	28 1.22 56	4 0.10 3	0	88 1.44 43	66 1.37 41	18 0.51 15	1.2 0.02 1	0.2	0.19	--	209 196	104
6- 8-64	--	7.6	385	40 2.00 50	9 0.74 18	27 1.17 29	4 0.10 2	0	153 2.51 62	53 1.10 27	15 0.42 10	3 0.05 1	0.3	0.01	6	214 233	137

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million							Mineral constituents in parts per million							
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fer- ride Fe	Bur- den B	Sil- ica SiO ₂	Total Equiv. in parts per million CaCO ₃		
MIDDLE SANTA ANA R HYDRO SUBUNIT Y015C														Y0100				
RIVERSIDE HYDRO SUBAREA Y01B7														Y0100				
1S/ 5W-33L 1 S 4-10-64	--	7.6	557	37 1.85 32	22 1.81 31	48 2.07 36	0 0.02 1	0 0.02 1	168 2.75 46	47 1.02 17	67 1.69 32	0 0.26 4	0 0.08 0	-- 572 324	183			
1S/ 5W-34D 1 S 4-10-64	--	7.6	526	77 3.84 70	8 0.66 12	21 0.91 17	2 0.05 1	0 0.05 1	201 3.29 61	36 0.73 14	46 0.73 11	0 0.61 11	0 0.3 0	-- 238 307	225			
1S/ 5W-35G 1 S 11-19-63	70	7.8	446	63 3.14 66	11 0.90 19	15 0.65 14	2 0.05 1	0 0.05 1	209 3.43 72	26 0.54 11	13 0.37 6	0 0.44 7	0 0.03 0	-- 266 260	202			
6-23-64	--	8.1	412	64 3.19 72	7 0.58 13	14 0.61 14	2 0.05 1	0 0.05 1	207 3.39 76	26 0.54 12	6 0.23 5	0 0.32 7	0 0.3 0	-- 280 265	169			
9-30-64	69	7.8	490	--	--	--	--	--	--	--	11 0.31	21 0.34	--	--	--			
1S/ 5W-35J 1 S 7-7-64	--	6.1	773	107 5.34 60	18 1.48 17	44 1.91 22	4 0.10 1	0 0.10 1	371 6.08 69	44 0.92 11	50 1.41 16	21 0.34 4	0 0.4 0	520 492	341			
1S/ 5W-35J 4 S 7-7-64	--	8.1	769	102 5.09 58	21 1.73 20	43 1.87 21	4 0.10 1	0 0.10 1	376 6.16 71	41 0.85 10	47 1.33 15	27 0.35 4	0 0.3 0	490 492	341			
1S/ 5W-35R 1 S 7-7-64	--	7.9	648	88 4.39 61	18 1.48 7	30 1.30 18	3 0.08 1	0 0.08 1	305 5.00 70	39 0.95 11	31 0.87 12	31 0.50 7	0 0.16 0	430 416	274			

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million reactance value				Mineral constituents in parts per million						
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Sulfate SO ₄	Bicarbonate HCO ₃	Chloride Cl	Nitrate NO ₃	Fluoride F	Barium Ba	Silica SiO ₂	Total Evap. 105°C or Computed Total			
MIDDLE SANTA ANA R HYDRO SUBUNIT Y0100														SANTA ANA RIVER HYDRO UNIT Y0100				
RIVERSIDE HYDRO SUBAREA Y0107																		
1S/ 5W-36A 1 S 1- 8-64	--	7.4	1002	156 7.78 62	26 2.14 17	57 2.57 20	4 0.10 1	0 0 0	32 0.52 4	428 0.91 71	.00 2.40 20	59 0.63 5	0.6	0.15	--	901 816	496	
1S/ 5W-36B 6 S 11-20-63	--	7.7	899	78 3.89 42	13 1.07 12	92 4.00 44	9 0.23 3	0 4.25 46	259 4.25 46	112 2.33 25	76 2.14 23	36 0.58 6	0.9	0.45	--	550 545	248	
3-10-64	--	7.8	1000	99 4.94 45	15 1.23 11	102 4.43 41	12 0.31 3	0 4.39 41	268 4.39 41	141 2.94 28	.90 2.54 24	45 0.73 7	0.0	0.49	--	556 637	309	
6-23-64	--	7.4	1079	113 5.64 47	14 1.15 10	112 4.87 40	15 0.36 3	0 5.36 46	327 5.36 46	136 2.85 24	.95 2.60 23	44 0.71 6	0.8	0.42	22	710 713	340	
9-30-64	--	7.5	1477	--	--	--	--	--	--	--	127 3.58	42 0.68	--	--	--	--	--	
1S/ 5W-36C 6 S 7- 7-64	--	8.3	472	62 3.9 59	12 0.99 19	24 1.04 20	3 0.08 2	12 0.40 8	188 3.08 60	38 0.79 15	13 0.37 7	33 0.53 10	0.4	0.06	24	320 314	204	
1S/ 5W-36F 1 S 4-10-64	--	7.6	008	113 5.64 63	16 1.32 15	43 1.87 21	4 0.10 1	0 5.61 62	342 5.61 62	61 1.27 14	.00 1.67 19	31 0.50 6	0.5	0.38	--	555 497	349	
1S/ 5W-36F 4 S 7- 7-64	--	7.9	937	94 4.69 47	16 1.32 13	30 3.91 39	5 0.13 1	0 3.44 35	210 3.44 35	132 2.75 28	105 2.96 20	39 0.63 6	0.4	0.22	23	655 608	301	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million						Mineral constituents in parts per million								
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Borates	Silica	I.D.S. Expressed as Computed	Total hardness	
Date sampled				Co	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂			
SANTA ANA RIVER HYDRO UNIT																		
MIDDLE SANTA ANA R HYDRO SUBUNIT YOLBU																		
RIVERSIDE HYDRO SUBAREA YOLB7																		
1S/ 5W-36M 2 S 7- 7-64	--	7.7	7.93	77	29	4.8	4	0	276	53	53	27	0.4	0.44	25	4.70	274	
				3.84	1.64	2.09	0.10	4	4.52	1.10	1.49	0.47				446		
				50	21	27	1		60	15	20	6						
1S/ 5W-36N 1 S 7- 9-64	--	7.9	6.02	73	12	36	4	0	1.3	6.2	0.85	34	0.4	0.08	26	4.30	452	
				3.64	0.39	1.57	0.10		3.16	1.71	0.85	0.55						
				58	16	25	2		50	27	14	7				392		
2S/ 4W-5C 1 S 6-26-64	69	7.5	8.88	95	21	64	4	0	274	67	85	64	0.9	0.36	16	5.59	324	
				4.74	1.73	2.76	0.10		4.49	1.39	2.40	1.03				5.52		
				51	19	30	1		48	15	26	11						
2S/ 4W-6A 1 S 4-10-64	--	7.3	7.63	97	14	46	4	0	279	72	57	30	0.7	0.07	--	4.97	300	
				4.84	1.15	2.00	0.10		4.57	1.50	1.61	0.48				4.58		
				60	14	25	1		56	18	20	6						
2S/ 4W-6K 2 S 11-20-63	--	7.7	13.41	37	46	126	4	0	346	135	143	104	0.5	0.13	--	8.75	431	
				4.84	3.78	5.22	0.10		5.67	2.81	4.03	1.68				8.40		
				35	27	37	1		40	20	28	12						
6-26-64	--	8.0	12.91	112	33	119	4	0	317	146	159	94	0.6	0.14	29	8.68	415	
				5.59	2.71	5.17	0.10		5.20	3.04	3.72	1.52				8.23		
				41	29	38	1		38	22	25	11						
2S/ 4W-60 2 S 11-19-63	--	7.2	18.68	216	52	124	1	0	273	504	150	67	0.8	0.37	--	13.86	754	
				1.73	4.28	5.39	0.03		4.47	10.47	4.23	1.08				12.49		
				59	21	26			22	52	21	5						
6-26-64	--	7.4	15.82	181	38	119	4	0	295	372	156	52	0.6	0.36	24	11.22	608	
				5.03	3.13	5.17	0.10		4.84	7.75	3.84	0.84				10.72		
				52	18	30	1		28	45	22	5						

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				parts per million				Mineral constituents in parts per million			
				Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Evap. Residue	IDS. Evap. Residue	Total hardness as CaCO ₃	
MIDDLE SANTA ANA R. HYDRO SUBUNIT Y01B7																			
RIVERSIDE HYDRO SUBAREA Y01B0																			
MIDDLE SANTA ANA R. HYDRO SUBUNIT Y01B0																			
Y0100																			
2S/ 4W- 6R 5 S 11-20-63	--	7.5	853	67 3.34 39	39 5.21 37	45 1.96 23	4 0.10	4	0	24.2 3.97 47	65 1.35 16	65 2.40 28	40 0.77	0.6	0.15	--	485 473	328	
6-26-64	67	7.8	842	104 5.19 58	20 1.64 18	48 2.09 23	4 0.10	4	0	28.1 4.61 51	81 1.69 19	74 2.05 23	42 0.68 7	0.6	0.09	18	537 530	342	
2S/ 5W- 1J 2 S 3-11-64	--	7.7	918	79 3.94 42	16 1.32 14	91 3.96 42	6 0.15	6	0	24.0 3.93 43	102 2.12 23	93 2.62 28	35 0.56 6	0.7	0.41	--	560 541	263	
2S/ 5W- 2P 1 S 9-15-64	--	7.8	700	80 3.99 53	17 1.40 18	49 2.13 28	3 0.08	3	0	30.0 4.92 63	67 1.39 18	21 0.59 8	55 0.89 11	0.1	0.07	--	446 440	270	
2S/ 5W-10F 1 S 9-15-64	--	8.0	1118	--	--	--	--	--	0	40.4 6.62	--	86 2.43	--	--	--	--	--	360	
2S/ 5W-11A 1 S 6-23-64	68	7.7	791	99 4.94 58	19 1.56 18	45 1.96 23	4 0.10	4	0	23.9 3.92 46	113 2.55 28	60 1.69 20	34 0.55	0.4	0.10	24	530 516	325	
2S/ 5W-11K 2 S 1- 8-64	--	7.0	1189	--	--	--	--	--	--	21.5 3.52	--	80 2.26	--	--	--	--	--	900 832	
1- 8-64	--	7.0	1215	158 7.88 56	42 3.45 25	58 2.52 18	0 0.15	0	0	21.0 3.44 25	374 7.97 57	84 2.37 17	5.8 0.09 1	0.4	0.20	--	900 832	567	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million						Mineral constituents in parts per million						
				Calcium Co.	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total Hardness CaCO ₃
MIDDLE SANTA ANA R HYDRO SUBUNIT Y018C																
RIVERSIDE HYDRO SUBAREA Y0187																
SANTA ANA RIVER HYDRO UNIT Y0100																
25/ SW-11K 2 S 6-26-64	--	7.0	1081	143 7.14 58	30 2.47 20	61 2.65 21	0.13 0.13	5 1	0	229 3.75 31	301 6.27 51	67 1.69 15	23 0.37 3	0.5 0.26 21	806 764	461
6-26-64	--	6.8	1102	146 7.29 59	2.30 19	61 2.65 21	0.13 0.13	5 1	0	229 3.75 30	306 6.37 52	68 1.92 16	20 0.32 3	0.5 0.26 22	820 769	480
6-26-64	--	6.7	1117	149 7.44 59	30 2.47 19	61 2.65 21	0.13 0.13	5 1	0	226 3.70 29	322 6.70 53	68 1.92 15	19 0.31 2	0.5 0.24 22	837 788	496
6-26-64	--	6.6	1246	178 8.88 60	38 3.13 21	59 2.57 17	0.15 0.15	6 1	0	217 3.56 24	435 9.06 62	67 1.89 13	2.6 0.04	0.5 0.20 19	976 912	601
6-26-64	--	7.0	1240	178 8.88 60	37 3.04 21	61 2.65 18	0.15 0.15	6 1	0	232 3.80 26	428 8.91 61	67 1.89 13	1.0 0.02	0.5 0.22 16	960 909	596
9-25-64	65	7.4	909	93 4.64 47	31 2.55 26	61 2.65 27	0.13 0.13	4 1	0	244 4.00 41	140 2.91 30	77 2.17 22	37 0.60 6	0.5 0.29 --	590 564	360
9-25-64	66	7.0	982	118 5.89 53	32 2.63 24	55 2.39 22	0.13 0.13	5 1	0	242 3.97 36	253 5.27 48	63 1.76 16	0	0.5 0.28 --	683 646	426
9-25-64	64	7.6	911	93 4.64 47	37 2.47 25	63 2.74 28	0.10 0.10	4 1	0	246 4.03 41	138 2.87 29	81 2.20 23	39 0.63 6	0.5 0.29 --	596 570	356

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent reactance value				Mineral constituents in parts per million					
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Ful- fide F	Bicarb- onate HCO ₃	Syn- co SiO ₂	I.D.S. Evap (BOC) Hardness Computed (CALC)	
MIDDLE SANTA ANA R HYDRO SUBUNIT Y0180																	
RIVERSIDE HYDRO SUBAREA Y01B7																	
25/ 5W-11K 2 S 9-25-64	66	7.1	944	111 5.54 53	2.27 2.52 21	58 2.52 24	5 0.13 1	0	0	222 3.64 35	212 4.41 43	72 2.03 20	15 0.24 2	0.6	0.28	641 610	388
9-25-64	64	7.3	910	101 5.04 51	2.25 2.06 21	60 2.61 27	4 0.10 1	0	0	237 3.88 40	148 3.08 32	77 2.17 22	33 0.53 5	0.5	0.28	598 565	355
25/ 5W-11M 1 S 11-20-63	--	7.7	627	78 3.89 59	1.13 1.07 16	35 1.52 23	3 0.08 1	0	0	246 4.03 60	66 1.37 20	23 0.65 10	41 0.66 10	0.6	0.07	384 381	248
6-23-64	--	7.8	579	69 3.44 54	1.15 1.23 19	36 1.57 25	3 0.08 1	0	0	246 4.03 64	59 1.23 20	17 0.46 8	35 0.56 9	0.4	0.04	375 381	234
25/ 5W-12B 2 S 11-20-63	--	7.5	1699	163 8.13 50	4.49 4.03 25	90 3.91 24	6 0.15 1	0	0	220 3.61 22	322 6.70 42	181 5.10 32	43 0.69 4	0.6	0.15	1030 963	608
6-23-64	--	7.5	1361	161 8.03 51	3.13 3.15 29	100 4.35 28	6 0.15 1	0	0	285 4.67 31	301 6.27 41	137 3.86 25	28 0.45 3	0.7	0.26	1010 935	558
25/ 5W-12C 1 S 11-20-63	--	7.5	999	97 4.84 49	1.18 1.48 15	80 3.68 35	5 0.13 1	0	0	259 4.25 44	113 2.35 24	100 2.82 29	19 0.31 3	0.6	0.15	602 560	316
3-11-64	--	7.7	986	96 4.79 47	1.15 1.56 15	85 3.70 36	5 0.13 1	0	0	255 4.18 43	110 2.29 23	97 2.74 28	37 0.60 6	0.6	0.41	589 575	318
SANTA ANA RIVER HYDRO UNIT Y0100																	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million										Mineral constituents in parts per million						
				Calcium	Magnesium	Sodium	Potassium	Chloride	Sulfate	Bicarbonate	Carbonate	Calcium	Fluoride	Iron	Copper	Lead	Mercury			
Date sampled				Co	Mg	Na	K	Cl	SO ₄	HCO ₃	CO ₃	SO ₄	CI	NO ₃	F	B	Fe	Cu	Pb	Hg
25/ 5W-12C 1 S 6-23-64	--	7.6	909	4.24	1.87	3.57	0.13	82	5	0	266	107	87	38	0.9	0.36	18	590		907
				43	19	36	1	23	45		45	2.45	2.45	0.61				577		
9-15-64	--	7.8	900	3.54	2.06	3.78	0.13	87	5	0	254	103	89	36	0.2	0.27	--	584		280
				37	22	40	1	23	44		44	2.51	2.51	0.61				543		
25/ 5W-12D 6 S 7- 9-64	--	7.4	1036	125	24	68	5	68	5	0	224	176	113	37	0.6	0.16	21	735		411
				6.24	1.97	2.96	0.13	26	1	0	3.67	3.66	3.19	0.60				680		
				55	17	26	1	33	33		33	29	5							
25/ 5W-12E 1 S 11-23-63	68	8.0	318	42	9	13	2	10	5	0	174	10	5	6.3	0.4	0.10	--	141		147
				2.10	0.74	0.57	0.05	16	1	0	7.85	0.21	0.25	0.10				177		
				61	21	16	1	6	84		84	7	7	3						
6-23-64	--	7.7	304	46	5	11	1	11	1	0	178	11	5	3.2	0.3	0.06	26	205		136
				2.30	0.41	0.48	0.03	15	1	0	2.92	0.23	0.14	0.05				196		
				71	13	15	1	4	87		87	7	4	1						
25/ 5W-12E 2 S 11-19-63	--	7.2	1339	155	43	69	6	69	6	0	261	268	131	58	0.7	0.27	--	954		564
				7.73	3.54	3.00	0.15	21	1	0	4.28	5.58	3.69	0.64				859		
				54	25	21	1	39	30		30	25	6							
6-23-64	--	7.1	1215	152	33	72	6	72	6	0	259	247	117	41	0.6	0.22	23	870		515
				7.58	2.71	3.13	0.15	23	1	0	4.25	5.14	3.36	0.66				821		
				56	20	23	1	38	25		38	25	5							
25/ 5W-12F 1 S 7- 9-64	--	7.8	1034	133	70	68	5	68	5	0	212	182	116	39	0.7	0.14	23	745		414
				6.64	1.64	2.96	0.13	26	1	0	3.47	3.79	3.27	0.63				691		
				58	14	26	1	34	31		31	34	6							

Y0100

SANTA ANA RIVER HYDRO UNIT

MIDDLE SANTA ANA R HYDRO SUBUNIT Y0183

RIVERSIDE HYDRO SUBAREA

Y0187

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Date sampled	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million										Mineral constituents in parts per million					
					Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Ferric oxide	Barium	Silica	I.D.S. Exposed	Hardness as CaCO ₃	Total Hardness as CaCO ₃	
					Co	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂	Computed	Calcd		
SANTA ANA RIVER HYDRO UNIT Y0100																				
MIDDLE SANTA ANA R HYDRO SUBUNIT Y01B0					Y01B7															
RIVERSIDE HYDRO SUBAREA					74	13	34	3	0	203	99	28	3.8	0.5	0.12	29	390	238		
2S/ 5W-14G 2 S		--	7.7	575	3.69	1.07	1.48	0.08	3.33	3.33	2.06	0.79	0.06							
6-23-64					58	17	23	1	53	53	33	13	1							
2S/ 5W-15G 2 S		7.0	7.6	499	3.04	0.82	1.22	0.05	1.92	3.15	1.19	0.82	0.10	0.5	0.09	--	289	193		
11-19-63					59	16	24	1	60	60	23	16	2							
2S/ 5W-16A 3 S		--	7.8	830	90	25	69	5	0	330	104	75	8	0.1	0.17	--	600	328		
9-15-64					4.49	2.06	3.00	0.13	5.41	5.41	2.17	2.12	0.13							
2S/ 5W-17R 1 S		--	7.9	830	102	28	57	4	0	315	121	60	47	0.1	0.12	--	648	370		
9-15-64					5.09	2.30	2.48	0.10	5.16	5.16	2.52	1.69	0.76							
2S/ 5W-20R 1 S		--	7.7	612	83	10	32	1	0	246	60	28	19	0.4	0.05	--	574	248		
11-22-63					4.14	0.82	1.39	0.03	4.03	4.03	1.25	0.79	0.31							
6-23-64		--	8.0	578	65	13	22	1	63	63	20	12	5							
9-15-64		--	8.0	620	78	12	34	3	0	234	76	19	23	0.4	0.04	22	380	244		
2S/ 5W-21J 1 S		--	7.4	858	114	25	42	4	0	278	176	48	3.5	0.6	0.10	28	610	388		
7-10-64					3.89	0.99	1.48	0.08	3.84	3.84	1.58	0.54	0.37							
					6.0	15	23	1	61	61	25	9	6							
					76	18	36	3	0	241	97	24	27	0.1	0.07	--	382	264		
					3.79	1.48	1.57	0.08	3.95	3.95	2.02	0.68	0.44							
					55	21	23	1	56	56	28	10	6							
					5.69	2.06	1.83	0.10	4.56	4.56	3.66	1.35	0.06							
					59	21	19	1	47	47	38	14	1							

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million percent reactance value				Mineral constituents in parts per million					
				Calcium Co	Magne- sium Mg	Sodium No	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fluo- ride F	Bor- on B	Sili- co SiO ₂	TDS Equiv. (ppm) Computed	To Address C-13
MIDDLE SANTA ANA R HYDRO SUBUNIT Y01BU																	
RIVERSIDE HYDRO SUBAREA Y01B7																	
SANTA ANA RIVER HYDRO UNIT Y0100																	
2S/ 5W-22D 1 S 7-10-64	--	7.6	982	136 6.79	29 2.38	50 2.17	4 0.10	0	4.80	235	57	5.0	0.7	0.12	27	730	459
2S/ 5W-22R 1 S 9-15-64	--	7.9	440	61 3.04	7 0.58	24 1.04	3 0.08	0	3.10	38	30	8	0.1	0.05	--	688	181
2S/ 5W-29E 4 S 11-22-63	--	7.4	666	64 3.74	17 1.23	22 1.61	2 --	64	3.61	16	17	3	0.6	0.10	--	264	249
7-10-64	--	7.5	672	57 3.24	19 1.07	24 2.61	5 0.13	54	4.25	17	24	6	0.6	0.16	18	369	216
3S/ 4W-10A 1 S 11- 4-63	--	7.5	525	46 3.24	15 1.07	37 2.61	2 0.13	60	4.25	17	23	2	0.4	0.07	47	406	145
3S/ 4W-10B 2 S 11- 4-63	--	7.1	610	38 2.35	12 0.99	55 2.39	2 0.05	69	1.13	18	114	34	0.4	0.14	48	390	184
				36 47	19 16	45 55	1 3	21	0.82	7	61	10				354	394
				38 38	21 21	39 39	1 1	23	1.34	7	61	10				394	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent reactivity value				Mineral constituents in parts per million						
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	Iron	Total hardness as CaCO ₃	
Date sampled				CO	MG	NO	K	CO ₃	HCO ₃	SO ₄	CL	NO ₃	F	B	SiO ₂	Fe	Total hardness as CaCO ₃	
SANTA ANA RIVER HYDRO UNIT Y0100																		
COLTON-RIALTO HYDRO SUBUNIT Y0100																		
UPPER LYTLE HYDRO SUBAREA Y0103																		
7N/ 6W-22K 1 S 9-14-64	--	7.9	450	56 2.79 59	18 1.48 31	0.35 0.08 7	3 0.08 2	0	238 3.90 80	44 0.92 19	3 0.08 2	0	0.1	0	--	276 249	214	
UPPER COLTON-RIALTO HYDRO SUBAREA Y0104																		
1S/ 5W- 5A 3 S 9-14-64	--	7.8	650	54 2.69 37	24 1.97 27	59 2.57 35	3 0.08 1	0	159 2.61 36	148 3.08 43	52 1.47 20	2 0.03	0.2	0.07	--	390 420	233	
COLTON-RIALTO HYDRO SUBAREA Y0104																		
1S/ 4W-16P 4 S 3-16-64	--	7.4	353	--	--	--	--	0	139 2.28	24 0.50	30 0.85	--	--	--	--	68		
4- 9-64	--	7.8	399	27 1.35 35	3 0.25 6	50 2.17 56	3 0.08 2	0	139 2.28 59	20 0.42 11	40 1.13 29	0.6 0.01	1.0	0.15	--	225 213	80	
1S/ 4W-17G 1 S 3-18-64	--	8.2	758	--	--	--	--	0	279 4.57	78 1.62	68 1.92	--	--	--	--	59		
4- 9-64	--	7.2	1019	95 4.74 52	27 1.81 20	57 2.48 27	6 0.15 2	0	102 1.67 18	63 1.31 14	221 6.23 67	1.0 0.02	0.1	0	--	725 515	328	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million						Mineral constituents in parts per million							
				Calcium Co Mg	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total Dissolved Solids TDS	Total Dissolved Solids TDS
COLTON-RIALTO HYDRO SUBUNIT Y0100																	
COLTON-RIALTO HYDRO SUBAREA Y0140																	
1S/ 4W-17G 1 S 6- 8-64	--	7.4	925	87 4.34 50	22 1.81 21	53 2.30 26	9 0.23 3	0	90 1.48 17	41 0.85 10	223 6.29 73	1 0.02	0.4	4.60	5	719 490	308
1S/ 4W-17N 1 S 2-21-64	--	7.8	481	62 3.09 63	11 0.90 18	19 0.83 17	4 0.10 2	0	168 2.75 57	46 0.96 20	14 0.39 8	43 0.69 14	0.5	0	--	342 282	200
1S/ 4W-17R 1 S 3-16-64	--	7.7	577	--	--	--	--	0	191 3.13	92 1.92	17 0.48	--	--	--	--	--	93
4- 9-64	--	7.2	407	24 1.20 34	13 1.07 30	26 1.13 32	5 0.13 4	0	40 0.66 19	99 2.06 60	25 0.71 21	1.0 0.02 1	0	0.08	--	212 213	114
6- 8-64	--	8.2	434	47 2.35 52	13 1.07 24	22 0.96 21	5 0.13 3	0	129 2.11 47	77 1.60 35	17 0.48 11	20 0.32 7	0.3	0.02	7	272 272	171
1S/ 4W-18E 1 S 4-10-64	--	8.0	479	73 3.64 71	9 0.74 14	16 0.70 14	3 0.08 2	0	206 3.38 65	38 0.79 15	8 0.23 4	49.0 0.79 15	0.4	0.02	--	316 298	219
1S/ 4W-19D 1 S 3-16-64	--	8.0	462	--	--	--	--	0	220 3.61	42 0.87	13 0.37	--	--	--	--	--	95
4- 9-64	--	7.4	324	26 1.30 42	6 0.49 16	28 1.22 39	4 0.10 3	0	124 2.03 65	34 0.71 23	13 0.37 12	1.0 0.02 1	0.2	0	--	184 173	90

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				parts per million				Mineral constituents in parts per million			
				Calcium Mg	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total Hardness as CaCO ₃	Evap-100°C Computed	Total Hardness as CaCO ₃	
COLTON-RIALTO HYDRO SUBUNIT																			
COLTON-RIALTO HYDRO SUBAREA																			
Y010																			
SANTA ANA RIVER HYDRO UNIT																			
Y0100																			
Y014																			
1S/ 4W-21B 6 S 10-23-63	--	7.4	684	55 2.74 39	15 1.23 17	67 2.91 41	0.15 0.15	6 0	0	203 3.33 48	82 1.71 25	59 1.66 24	15 0.24 3	0.8	0.37	11	401 411	199	
1S/ 4W-21J 4 S 10-23-63	--	8.1	496	40 2.00 36	13 1.07 19	55 2.39 43	0.08 0.08	3 1	0	217 3.56 64	71 1.48 27	17 0.48 9	0.4 0.01	1.6	0.13	10	414 318	154	
1S/ 4W-21J 5 S 10-23-63	--	8.0	554	47 2.35 39	13 1.07 18	59 2.57 42	0.08 0.08	3 1	0	242 3.97 68	54 1.12 19	27 0.76 13	1.0 0.02	1.1	0.12	14	331 338	171	
1S/ 4W-21K 5 S 11-20-63	--	7.8	1491	185 9.23 53	62 5.10 29	69 3.00 17	0.15 0.15	6 1	0	63 1.03 6	634 13.20 76	100 2.82 16	18 0.29 2	0.6	0.54	--	1214 1106	717	
6-25-64	--	7.9	649	67 3.34 48	16 1.32 19	52 2.26 32	0.4 0.10	4 1	0	246 4.03 58	79 1.64 24	40 1.13 16	6.4 0.10 1	0.9	0.16	23	410 409	233	
1S/ 4W-21K 9 S 10-23-63	--	7.5	1008	112 5.59 52	28 2.38 22	62 2.70 25	0.4 0.10	4 1	0	149 2.44 19	362 7.54 58	101 2.85 22	9.1 0.15 1	0.5	0.46	13	660 766	399	
1S/ 4W-21L 3 S 11-20-63	--	7.5	625	66 3.29 51	12 0.99 15	49 2.13 33	0.4 0.10	4 2	0	229 3.75 58	77 1.60 25	36 1.02 16	7 0.11 2	1.0	0.24	--	410 365	214	
1S/ 4W-21R 1 S 11-19-63	--	7.4	890	58 2.89 35	35 2.88 35	54 2.35 29	0.03 0.03	1 0	0	266 4.36 54	64 1.33 17	65 1.83 23	33 0.53 7	0.6	0.19	--	509 441	289	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million reactance value										Mineral constituents in parts per million				
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fuoride F	Boron B	Silica SiO ₂	Total Dissolved Solids Evap 105°C as CaCO ₃		
COLTON-RIALTO HYDRO SUBUNIT Y0100														Y0100				
COLTON-RIALTO HYDRO SUBAREA Y0104														Y0104				
1S/ 4W-21R 1 S 4-13-64	--	7.5	837	95 4.74 53	23 1.89 21	53 2.30 26	3 0.08 1	0	0	317 5.20 58	79 1.64 18	64 1.80 20	20 0.32 4	0.9	0.29	--	521 494	332
6-24-64	--	7.3	840	91 4.54 49	27 2.22 24	56 2.43 26	4 0.10 1	0	0	332 5.44 59	86 1.79 19	64 1.80 19	16 0.26 3	0.8	0.32	22	545 530	338
1S/ 4W-22N 1 S 7- 2-64	--	8.1	772	65 3.24 38	27 2.22 26	70 3.04 35	4 0.10 1	0	0	332 5.44 63	68 1.42 17	61 1.72 20	0.5 0.01	0.8	0.26	15	470 475	273
1S/ 4W-28E 1 S 1- 2-64	--	7.4	964	--	--	--	--	0	0	281 4.61	--	100 2.82	--	--	--	--	--	--
1- 2-64	--	7.4	955	--	--	--	--	0	0	276 4.52	--	95 2.68	--	--	--	--	--	--
1- 2-64	--	7.4	959	79 3.94 40	18 1.48 15	97 4.22 43	6 0.15 2	0	0	300 4.92 49	73 1.52 15	95 2.68 27	52 0.84 8	0.6	0.56	--	574 569	271
1- 2-64	--	7.5	963	--	--	--	--	0	0	301 4.93	--	98 2.76	--	--	--	--	--	--
1- 2-64	--	7.3	954	--	--	--	--	0	0	292 4.79	--	95 2.68	--	--	--	--	--	--

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million						Mineral constituents in parts per million				Total hardness in mg/l CaCO ₃
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fluo- ride F	
COLTON-RIALTO HYDRO SUBUNIT Y01D0 Y0100														
COLTON-RIALTO HYDRO SUBAREA Y01D4														
15/ 4W-28E 1 S 2-25-64	--	7.3	963	--	--	--	--	--	275 4.51	96 2.71	--	--	--	--
2-25-64	--	7.4	964	--	--	--	--	285 4.67	96 2.71	--	--	--	--	--
2-25-64	--	7.3	978	87 4.34 44	15 1.23 12	95 4.13 42	6 0.15 2	0 4.56 47	278 4.56 47	97 2.74 28	62 1.00 10	0.5	0.51	597 572
2-25-64	--	7.3	985	--	--	--	--	282 4.62	96 2.71	--	--	--	--	--
2-25-64	--	7.1	976	--	--	--	--	295 4.84	96 2.71	--	--	--	--	--
5- 6-64	69	7.1	941	78 3.89 39	19 1.56 16	100 4.35 44	7 0.18 2	0 4.75 48	290 4.75 48	94 2.65 27	56 0.90 9	0.6	0.54	630 614
5- 6-64	69	7.0	950	82 4.09 40	19 1.56 15	100 4.35 43	7 0.18 2	0 4.90 48	299 4.90 48	96 2.71 27	56 0.90 9	0.6	0.54	645 622
5- 6-64	69	7.2	955	80 3.99 39	20 1.64 16	100 4.35 43	7 0.18 2	0 4.88 48	298 4.88 48	96 2.71 27	58 0.94 9	0.6	0.50	640 623

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million										Mineral constituents in parts per million					
				Ca	Mg	Na	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Ferric	Boron	Silica	Total hardness			
Date sampled				Co	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂	I.D.S. Evap 180°C	Computed	Total hardness	
COLTON-RIALTO HYDRO SUBUNIT Y0100																			
COLTON-RIALTO HYDRO SUBAREA Y0104																			
157-4W-2RF 15	66	7.2	952	80	20	100	7	0	298	80	97	56	0.6	0.50	35	640		282	
5-6-64				3.99	1.64	4.35	0.18		4.88	1.67	2.74	0.90				623			
				39	16	43	2		48	16	27	9							
6-25-64	--	7.9	957	84	15	103	8	0	299	82	92	66	0.7	0.52	39	625		271	
				4.19	1.23	4.48	0.20		4.90	1.71	2.59	1.06				637			
				41	12	44	2		48	17	25	10							
6-25-64	--	7.2	962	85	16	100	8	0	306	81	92	62	0.7	0.52	38	625		278	
				4.24	1.32	4.35	0.20		5.02	1.69	2.59	1.00				634			
				42	13	43	2		49	16	25	10							
6-25-64	--	7.7	962	86	16	100	7	0	305	81	92	62	0.6	0.52	38	630		281	
				4.29	1.32	4.35	0.18		5.00	1.69	2.59	1.00				633			
				47	13	43	2		49	16	25	10							
6-25-64	--	7.2	969	87	15	100	7	0	305	82	93	62	0.6	0.52	37	625		279	
				4.34	1.23	4.35	0.18		5.00	1.71	2.62	1.00				634			
				43	12	43	2		48	17	25	10							
6-25-64	--	7.3	965	85	15	100	7	0	306	82	92	64	0.6	0.54	38	630		274	
				4.24	1.23	4.35	0.18		5.02	1.71	2.59	1.03				635			
				42	12	44	2		49	17	25	10							
9-24-64	69	7.6	1013	95	17	98	7	0	317	83	97	60	0.6	0.52	37	653		307	
				4.74	1.40	4.26	0.18		5.20	1.73	2.74	0.97				651			
				45	13	40	2		49	16	26	9							
9-24-64	74	7.5	1012	103	17	91	6	0	330	80	100	53	0.6	0.50	31	656		327	
				5.14	1.40	3.96	0.15		5.41	1.67	2.82	0.85				644			
				48	13	37	1		50	16	26	8							

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Date sampled	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					Mineral constituents in parts per million							
					Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Barium B	Silica SiO ₂	Total dissolved solids
COLTON-RIALTO HYDRO SUBUNIT Y0100																	
COLTON-RIALTO HYDRO SUBAREA Y01L4																	
1S/ 4W-28E 1 S 9-24-64		69	7.4	1011	102 5.09 48	18 1.48 14	91 3.96 37	6 0.15 1	0	333 5.46 51	81 1.69 16	100 2.82 26	51 0.82 8	0.6	0.50	33 653 647	329
9-24-64		69	7.3	1011	99 4.94 47	17 1.40 13	95 4.13 39	6 0.15 1	0	325 5.33 50	82 1.71 16	99 2.79 26	53 0.85 8	0.6	0.51	34 652 646	317
9-24-64		69	7.3	1008	97 4.84 46	17 1.40 13	95 4.13 39	7 0.18 2	0	322 5.28 49	84 1.75 16	97 2.74 26	56 0.90 8	0.6	0.52	35 650 647	312
9-24-64		69	7.2	1015	93 4.64 44	18 1.48 14	98 4.26 40	7 0.18 2	0	319 5.23 49	84 1.75 16	99 2.79 26	54 0.87 8	0.6	0.54	34 648 645	306
1S/ 4W-28G 2 S 11-19-63		--	7.2	887	37 1.85 23	29 2.38 30	84 3.65 46	0	0	256 4.20 54	93 1.94 25	50 1.41 18	12 0.19 2	0.8	0	-- 509 432	212
6-25-64		--	7.6	918	86 4.29 42	25 2.06 20	85 3.70 37	3 0.08 1	0	349 5.72 56	123 2.56 25	56 1.58 16	20 0.32 3	0.9	0.23	16 574 587	318
9-29-64		--	7.5	957	--	--	--	--	--	--	--	57 1.61	19 0.31	--	--	--	470 457
1S/ 4W-28M 1 S 7-2-64		--	7.4	746	73 3.64 48	13 1.07 14	62 2.70 36	4 0.10 1	0	254 4.16 54	68 1.42 18	67 1.89 24	18 0.29 4	0.7	0.24	26 470 457	236

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million										Mineral constituents in parts per million				
				Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Baron B	Silica SiO ₂	I.D.S. Evap. 105°C Computed	Total hardness at 105°C as CaCO ₃	
Date sampled	SANTA ANA RIVER HYDRO UNIT Y0100																	
COLTON-RIALTO HYDRO SUBUNIT Y0100				COLTON-RIALTO HYDRO SUBAREA Y0104														
1S/ 4W-28R 1 S 11-19-63	--	7.6	800	58 2.89 36	16 1.32 17	86 3.74 47	0.03	1	0	266 4.36 56	48 1.00 13	57 1.61 21	51 0.82 11	0.6	0.32	--	467 449	211
6-25-64	--	7.8	673	48 2.40 34	13 1.07 15	80 3.48 50	3 0.08 1	3	0	249 4.08 59	38 0.79 11	53 1.49 21	37 0.60 9	0.7	0.11	24	412 419	174
9-30-64	--	7.7	881	--	--	--	--	--	--	--	--	76 2.14	11 0.18	--	--	--	--	--
1S/ 4W-28R 3 S 4-10-64	--	7.7	620	57 2.84 44	11 0.90 14	60 2.61 41	3 0.08 1	3	0	231 3.79 57	57 1.19 18	48 1.35 20	20.0 0.32 5	0.9	0.12	--	394 371	187
1S/ 4W-29A 1 S 11-20-63	72	8.0	406	36 1.80 44	3 0.25 6	45 1.96 48	2 0.05 1	2	0	151 2.47 63	36 0.75 19	20 0.56 14	8.3 0.13 3	0.3	0.05	--	250 225	103
6-25-64	69	7.6	428	55 2.74 59	7 0.58 13	28 1.22 26	3 0.08 2	3	0	192 3.15 69	36 0.75 17	17 0.48 11	9.8 0.16 4	0.3	0.03	21	271 272	166
1S/ 4W-29H 3 S 11-20-63	--	8.0	752	84 4.19 54	13 1.15 15	52 2.26 29	4 0.10 1	4	0	233 3.82 51	71 1.48 20	68 1.92 26	15 0.24 3	0.8	0.17	--	469 423	267
6-23-64	--	7.3	673	76 3.79 52	15 1.23 17	51 2.22 30	4 0.10 1	4	0	256 4.20 58	79 1.64 23	44 1.24 17	11 0.18 2	0.8	0.18	23	420 430	251

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents percent				mineral constituents in parts per million						
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total Dissolved Solids Computed	Total Hardness as CaCO ₃	
COLTON-RIALTO HYDRO SUBUNIT Y0100																		
COLTON-RIALTO HYDRO SUBAREA Y0100																		
SANTA ANA RIVER HYDRO UNIT Y0100																		
COLTON-RIALTO HYDRO SUBAREA Y0100																		
1S/ 4W-29H 3 S 9-30-64	--	7.8	742	--	--	--	--	--	--	--	--	54	33	--	--	--		
1S/ 4W-32E12 S 6-26-64	70	7.2	808	62 3.09 37	13 1.07 13	94 4.09 49	6 0.15 2	0	0	260 4.26 51	76 1.58 19	82 2.31 27	16 0.26 3	0.9	0.48	33	520 511	208
6-26-64	70	7.6	801	69 3.44 40	12 0.99 12	93 4.04 47	5 0.13 2	0	0	260 4.26 50	77 1.60 19	83 2.34 28	16 0.26 3	0.8	0.46	32	510 516	222
6-26-64	70	7.3	803	69 3.44 41	10 0.82 10	93 4.04 48	6 0.15 2	0	0	260 4.26 50	78 1.62 19	83 2.34 28	16 0.26 3	0.8	0.46	32	510 516	213
6-26-64	70	7.3	801	68 3.39 40	11 0.90 11	93 4.04 48	5 0.13 2	0	0	260 4.26 50	78 1.62 19	83 2.34 28	16 0.26 3	0.9	0.46	32	520 515	215
1S/ 5W-2K 1 S 9-14-64	--	7.8	330	38 1.90 56	12 0.99 29	11 0.48 14	2 0.05 1	0	0	175 2.87 83	15 0.31 9	6 0.17 5	6 0.10 3	0.1	0.05	--	200 176	145
1S/ 5W-11E 1 S 6- 8-64	--	7.7	244	28 1.40 54	8 0.66 25	11 0.48 19	2 0.05 2	0	0	114 1.87 74	18 0.37 15	9 0.25 10	2 0.03 1	0.3	0	4	122 138	103
1S/ 5W-12N 1 S 4-10-64	--	7.9	396	62 3.09 73	7 0.58 14	12 0.52 12	2 0.05 1	0	0	203 3.33 76	22 0.46 10	7 0.20 5	25 0.40 9	0.4	0.03	--	250 237	184

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				Mineral constituents in parts per million								
				Calcium Mg	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total hardness CaCO ₃
COLTON-RIALTO HYDRO SUBUNIT Y01D0																
COLTON-RIALTO HYDRO SUBAREA Y01D4																
1S/ 5W-13H 1 S 3-18-64	--	7.9	383	--	--	4	59	0	0	154	54	17	--	--	--	25
1S/ 5W-13M 1 S 4- 9-64	--	7.6	423	1.15	0.33	8	2.57	4	0	172	44	16	0.5	0.14	245	74
1S/ 5W-36A 1 S 6-26-64	--	7.7	1326	3.74	0.49	4	4.57	145	0	2.10	268	156	32	0.44	870	212
RECHE HYDRO SUBAREA Y01D5																
2S/ 3W-18D 1 S 10- 2-63	80	7.7	396	26	8	39	1.70	1	0	137	1	39	11	0.20	272	98
2S/ 4W-12M 1 S 10- 3-63	70	7.0	467	35	18	46	1.70	0.03	0	2.25	0.23	1.10	0.18	0.20	203	134
				42	7	39	1.70	0.03	0	146	14	44	24	0.5	317	243
				48	13	39	1.70	0.03	1	2.39	0.29	1.24	0.39	0.5	243	134
										55	7	29	9			

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million				Mineral constituents in parts per million							
				Calcium Mg	Magnesium	Sodium	Residual sum	Carbonate	Bicarbonate	Sulfate	Chloride	Fluoride	Trace	Na	Ca	Mg	SO ₄	Cl	F
SANTA ANA RIVER HYDRO UNIT																			
Y0100																			
UPPER SANTA ANA HYDRO SUBUNIT																			
BUNKER HILL HYDRO SUBAREA																			
Y01E0																			
Y01E2																			
1S/ 3W-14R 1 5 6-15-64	65	7.5	485	54 2.69	19 1.46	15 0.65	3 0.08	0	184 3.02	38 0.79	11 0.31	46.0 0.74	0.8	0.08	--	296 277	213		
1S/ 3W-15A 1 5 6-15-64	--	7.9	365	54 2.25	31 0.20	13 0.74	2 0.05	0	62 3.41	16 0.17	6 0.20	15 0.05	0.2	0.08	--	200 195	158		
1S/ 3W-15M 3 5 6-15-64	59	7.8	365	57 2.54	23 0.58	19 0.65	1	0	89 2.56	4 0.50	5 0.23	1	0.2	0.10	--	222 213	156		
1S/ 3W-16A 1 5 9-21-64	--	7.5	274	66 1.30	15 0.82	17 0.78	1	6	68 2.36	13 0.46	6 0.11	13	0.6	0.03	--	193 153	106		
1S/ 3W-16J 1 5 6-15-64	60	7.6	390	64 2.69	28 0.49	26 0.74	2	0	81 2.49	16 0.58	4	0.63	0.2	0.08	--	256 230	159		
1S/ 3W-17C 3 5 3-10-64	--	7.7	406	68 2.75	12 1.15	19 0.57	2	0	63 2.60	15 0.79	6	16	0.4	0	--	266 224	170		
6-15-64	--	7.6	400	56 2.00	16 1.32	15 0.65	2	0	65 2.67	19 0.67	14	9	0.2	0.02	--	210 216	166		
1S/ 3W-17L 1 5 6-15-64	66	7.7	900	66 2.66	22 1.81	28 1.22	3	0	42 3.80	33 2.98	10	28	0.4	0.18	--	592 547	390		

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent				Mineral constituents in parts per million					
				Calcium	Magne- sium	Sodium	Potas- sium	Carbon- ate	Bicar- bonate	Sulfate	Chlo- ride	Ni- trate	Fluo- ride	Boron	Sil- ica	IO ₃ -	Evap. hardness as CaCO ₃
Date sampled				Co	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂	Computer	
UPPER SANTA ANA HYDRO SUBUNIT Y01E0																	
BUNKER HILL HYDRO SUBAREA Y01E2																	
1S/ 3W-18L 1 S	44	8.2	770	66	49	36	3	0	231	126	20	118.0	0.4	0.15	--	588	366
6-16-64				3.29	4.03	1.57	0.08	3.79	3.79	2.62	0.56	1.90				532	
				37	45	18	1		43	30	6	21					
1S/ 3W-20R 2 S	70	7.8	950	55	19	29	2	0	215	35	26	33.0	0.8	0.05	--	322	215
6-15-64				2.74	1.56	1.26	0.05	3.52	3.52	0.73	0.73	0.53				306	
				49	28	22	1		64	13	13	10					
1S/ 3W-28E 2 S	74	7.8	660	46	29	46	3	0	209	46	57	39.0	0.8	0.05	--	394	734
6-15-64				2.30	2.38	2.00	0.08	3.43	3.43	0.96	1.61	0.63				370	
				34	35	30	1		52	14	24	10					
1S/ 3W-28H 1 S	75	7.7	560	46	22	40	2	0	214	40	28	42.0	0.8	0.05	--	334	206
6-15-64				2.30	1.81	1.74	0.05	3.51	3.51	0.83	0.79	0.68				326	
				39	31	29	1		60	14	14	12					
1S/ 3W-28M 2 S	76	7.5	480	39	6	57	3	0	190	32	30	9.0	1.0	0.07	--	262	122
6-15-64				1.95	0.49	2.48	0.08	3.11	3.11	0.67	0.85	0.15				270	
				39	10	50	2		65	14	18	3					
1S/ 3W-31H 1 S	66	8.2	920	57	39	94	2	0	333	92	49	100.0	0.6	0.05	--	568	303
6-15-64				2.84	3.21	4.09	0.05	5.46	5.46	1.92	1.38	1.61				597	
				28	32	40			53	19	13	16					
1S/ 4W- 3H 2 S	64	8.2	370	36	22	11	3	0	214	12	7	4.0	0.2	0.06	--	216	181
6-15-64				1.80	1.81	6.48	0.08	3.51	3.51	0.25	0.20	0.06				200	
				43	43	12	2		87	6	5	1					
1S/ 4W- 5E 5 S	63	7.7	515	57	23	16	3	0	242	50	11	15.0	0.2	0.03	--	280	237
6-17-64				2.84	1.89	0.70	0.08	3.97	3.97	1.04	0.31	0.16				280	
				52	34	13	1		72	19	6	3				280	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million percent reactance value				Mineral constituents in parts per million					
				Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total Dissolved Solids Computed	Total Address Co.CC.3
UPPER SANTA ANA HYDRO SUBUNIT																	
BUNKER HILL HYDRO SUBAREA																	
YO1E0																	
SANTA ANA RIVER HYDRO UNIT																	
YO100																	
YO1E2																	
1S/ 4W- 8F 7 S 6-17-64	62	7.9	500	59 2.94	21 1.73	14 0.61	3 0.08	0	215 3.52	60 1.25	16 0.45	2.0 0.03	0.2	0.05	--	316 281	234
1S/ 4W-10F 1 S 6-16-64	66	8.1	370	36 1.80	15 1.23	19 0.83	3 0.08	0	193 3.16	10 0.21	12 0.34	4.0 0.06	0.8	0.28	--	206 195	152
1S/ 4W-13E 7 S 11-19-63	52	7.8	471	53 2.64	14 1.15	18 0.78	3 0.08	0	151 2.47	83 1.73	18 0.51	1.5 0.02	0.4	0.05	--	249 265	190
6-24-64	--	7.4	510	72 3.59	13 1.07	19 0.83	3 0.08	0	205 3.36	84 1.75	15 0.42	2.3 0.04	0.3	0.09	22	342 331	233
1S/ 4W-13F 2 S 10-14-63	--	7.6	344	45 2.25	8 0.66	16 0.70	2 0.05	0	156 2.56	27 0.56	10 0.28	7.6 0.12	0.4	0.28	24	212 217	146
6-17-64	60	7.8	420	61 3.7	18 1.56	19 0.83	1 0.05	0	73 3.00	16 0.65	8 0.42	3	0.2	0.57	--	234 222	171
9-21-64	--	7.9	247	26 1.30	6 0.49	19 0.83	1 0.03	0	132 2.16	15 0.31	2 0.06	3.7 0.06	0.5	0.03	--	182 138	90
1S/ 4W-13G 2 S 3-10-64	--	7.7	421	49 2.64	18 0.90	21 0.74	1 0.05	0	83 3.18	12 0.48	2 0.54	2	0.1	0.38	--	235 232	177

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				million milliequivalents per million				Mineral constituents in parts per million			
				Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total Dissolved Solids (TDS) Computed	Total Hardness (Total) Colloidal		
UPPER SANTA ANA HYDRO SUBUNIT Y01E0																			
RUNKER HILL HYDRO SUBAREA Y01E2																			
1S/ 4W-13G 2 S 6-17-64	60	8.2	440	37 1.85 41	21 1.73 38	0.87 0.05	2 0.05	0	198 3.25 74	24 0.50 11	17 0.48 11	10.0 0.16 4	0.2	0.48	--	240 229	179		
9-21-64	--	7.5	418	55 2.74 61	12 0.99 22	0.74 0.05	2 0.05	0	201 3.29 74	25 0.52 12	16 0.45 10	10.0 0.16 4	0.3	0.46	--	365 237	187		
1S/ 4W-13L 1 S 3-10-64	--	7.9	385	48 2.40 61	10 0.82 21	0.65 0.05	2 0.05	0	160 2.62 66	30 0.62 16	11 0.31 8	26.0 0.42 11	0.2	0	--	220 221	161		
6-16-64	--	7.8	400	46 2.30 58	11 0.90 23	0.74 0.05	2 0.05	0	164 2.69 66	30 0.62 15	11 0.31 8	27.0 0.44 11	0.4	0.02	--	230 225	160		
1S/ 4W-14J 3 S 11-22-63	67	7.4	898	119 5.94 59	33 2.71 27	0.30 0.10	4 0.10	0	239 3.92 39	250 5.21 52	27 0.76 8	3.7 0.06 1	0.2	0.15	--	642 585	433		
6-24-64	67	7.9	672	130 6.49 63	28 2.30 22	0.31 0.10	4 0.10	0	254 4.16 41	262 5.45 53	21 0.59 6	2.6 0.04 0.04	0.5	0.07	28	664 632	440		
9-29-64	--	7.3	570	--	--	--	--	--	--	300 6.25	25 0.71	4.0 0.06	--	--	--	--	--		
1S/ 4W-15M 2 S 6-16-64	76	8.4	600	47 2.35 36	23 1.89 27	0.52 0.26 0.08	3 0.08 0.1	5 0.17 3	218 3.57 55	102 2.12 33	22 0.62 10	0.0	1.0	--	--	372 362	212		

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million							Mineral constituents in parts per million				Total hardness at 105°C Computed (ppm)
				Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Barium B	
UPPER SANTA ANA HYDRO SUBUNIT Y01E0															
BUNKER HILL HYDRO SUBAREA Y01E2															
SANTA ANA RIVER HYDRO UNIT Y0100															
1S/ 4W-16P 1 5 3-18-64	--	7.7	422	--	--	--	0	156 2.56	30 0.62	40 1.13	--	--	--	95	
6- 8-64	--	8.1	327	20 1.00 31	3 0.25 8	45 1.96 60	2 0.05 ?	0	122 2.00 61	8 0.17 5	39 1.10 33	1.0 0.02 1	0.08	5 171 184	63
1S/ 4W-21B 5 5 7-20-64	--	7.2	1135	--	--	--	--	--	392 8.16	48 1.35	1.0 0.02	--	--	--	97
1S/ 4W-22L 1 5 11-20-63	--	7.9	502	32 1.60 32	4 0.33 7	69 3.00 60	2 0.05 1	0	159 2.61 55	28 0.58 12	52 1.47 31	4.4 0.07 1	0.70	317 273	94
6-24-64	--	8.0	478	31 1.55 31	4 0.33 7	71 3.09 62	2 0.05 1	0	183 3.00 62	29 0.60 12	44 1.24 26	1.0 0.02	0.64	27 300 302	94
9-20-64	--	7.8	506	--	--	--	--	--	--	46 1.30	1.0 0.02	--	--	--	160
1S/ 4W-22L 5 5 11-19-63	7.0	7.8	442	46 2.30 49	11 0.70 17	33 1.43 31	1 0.03 1	0	193 3.16 66	40 0.83 17	23 0.65 14	10.0 0.16 3	0.08	236 260	159
6-25-64	6.9	7.9	447	47 2.35 50	10 0.82 17	35 1.52 32	2 0.05 1	0	190 3.11 65	50 1.04 22	18 0.51 11	9.0 0.15 3	0.15	270 280	159

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number Date sampled	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent reactance value				Mineral constituents in parts per million					
				Calcium Ca	Magne- sium Mg	Sodium Na	potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fluo- ride F	Iron Fe	Cu Cu	Zn Zn	Mn Mn
UPPER SANTA ANA HYDRO SUBUNIT Y01E0																	
BUNKER HILL HYDRO SUBAREA Y01E2																	
1S/ 4W-22N 3 S 7-20-64	--	7.5	830	--	--	--	--	--	--	--	82	66	10.0	--	--	--	--
1S/ 4W-23D 2 S 9-29-64	--	7.9	330	--	--	--	--	--	--	--	1.71	1.86	0.26	--	--	--	--
1S/ 4W-23P 3 S 9-29-64	72	7.9	405	--	--	--	--	--	--	--	--	13	2.0	--	--	--	--
1S/ 4W-25B 2 S 6-16-64	--	7.7	760	48	28	80	2	0	301	62	48	26.0	0.6	0.10	--	466	235
1S/ 4W-25C 1 S 6-16-64	65	7.7	520	2.40	2.30	3.48	0.05	4.93	4.93	1.29	1.35	0.42	5	0.14	--	443	311
1S/ 4W-26F 1 S 11-9-63	--	7.5	555	29	28	42	1	62	62	16	17	5	7	0.10	--	550	311
6-16-64	--	8.2	570	52	44	87	2	0	350	88	58	41.0	0.6	0.10	--	545	126
6-16-64	75	8.0	539	2.59	3.62	3.78	0.05	5.74	5.74	1.83	1.64	0.66	1	0.10	--	308	126
6-16-64	--	8.2	570	26	36	38	1	58	58	19	17	7	1	0.25	--	314	120
6-16-64	75	8.0	539	33	33	54	1	64	64	14	20	1	1	0.25	--	254	120
6-24-64	75	8.0	539	33	33	83	2	0	239	43	41	0.0	0.6	0.25	--	254	120
6-24-64	75	8.0	539	27	27	60	1	66	66	15	19	1	1	0.25	--	329	113
6-24-64	75	8.0	539	37	37	78	3	0	229	45	37	2.0	1.0	0.14	25	335	113
6-24-64	75	8.0	539	32	32	59	1	65	65	16	18	1	1	0.14	25	346	113

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million						Mineral constituents in parts per million							
				Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total hardness as CaCO ₃	
Date sampled				Y01E0	Y01E2	Y01E0	Y01E0	Y01E0	Y01E0	Y01E0	Y01E0	Y01E0	Y01E0	Y01E0	Y01E0	Y01E0	Y01E0
15/ 4W-26J 1 S 6-16-64	73	7.8	560	33 1.65 29	2 0.16 3	90 3.91 68	1 0.03 1	0	221 3.62 64	37 0.77 14	45 1.27 22	0.0	0.10	334 317	91		
15/ 4W-27B 2 S 11-19-63	--	7.6	679	54 2.69 39	14 1.15 17	69 3.00 44	1 0.03 0	0	251 4.11 60	45 0.94 14	59 1.66 24	10.0 0.16 2	0.11	358 377	192		
6-24-64	--	7.6	644	53 2.64 38	13 1.07 16	71 3.09 45	3 0.08 1	0	264 4.33 62	54 1.12 16	48 1.35 19	9.5 0.15 2	0.12	400 404	186		
9-29-64	--	7.7	687	--	--	--	--	--	--	--	46 1.30	6.0 0.10	--	--	--		
1N/ 3W-27N 1 S 6-15-64	--	8.1	460	42 2.10 43	12 0.99 20	40 1.74 36	2 0.05 1	0	171 2.80 60	50 1.04 22	17 0.48 10	20.0 0.32 7	0.25	300 269	155		
1N/ 3W-31K 2 S 6-16-64	--	8.4	600	30 1.50 25	17 1.40 23	73 3.17 52	1 0.03 3	6 0.20 3	190 3.11 51	45 0.94 15	13 0.37 6	93.0 1.50 25	0.17	370 374	145		
1N/ 3W-32C 1 S 6-15-64	79	7.9	570	51 2.54 41	13 1.07 17	59 2.57 41	2 0.05 1	0	230 3.77 62	49 1.02 17	22 0.62 10	43.0 0.69 11	0.17	376 353	181		
1N/ 4W-29E 1 S 6-16-64	64	8.2	520	45 2.25 41	30 2.47 45	15 0.65 12	3 0.08 1	0	243 3.98 75	45 0.94 18	7 0.20 4	13.0 0.21 4	0.07	294 278	236		

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million						Mineral constituents in parts per million							
				Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total Dissolved Solids at 105°C Computed	Total hardness as CaCO ₃
SANTA ANA RIVER HYDRO UNIT																	
UPPER SANTA ANA HYDRO SUBUNIT				Y0100													
BUNKER HILL HYDRO SUBAREA				Y01E2													
1N/ 4W-29F 1 S 3-10-64	--	6.5	1215	181 9.03 63	42 3.45 24	37 1.61 11	7 0.18 1	0	311 5.10 36	368 7.66 54	33 0.93 7	26.0 0.42 3	0.2	1.02	--	911 848	624
6-16-64	--	7.8	1170	93 4.64 33	98 8.06 58	26 1.13 8	5 0.15 1	0	261 4.28 31	414 8.62 61	28 0.79 6	21.0 0.34 2	0.2	1.02	--	930 815	636
9-21-64	--	7.2	513	72 3.59 64	17 1.44 25	13 0.57 10	3 0.08 1	0	244 4.00 71	48 1.00 18	9 0.25 4	24.0 0.39 7	0.5	0.05	--	363 306	250
1N/ 4W-29P 2 S 6-16-64	--	8.0	510	46 2.30 41	31 2.55 46	15 0.65 12	3 0.08 1	0	242 3.97 72	43 0.90 16	13 0.37 7	16.0 0.26 5	0.4	0.02	--	296 286	243
2N/ 3W-19L 2 S 12-26-63	--	7.2	171	19 0.95 52	5 0.41 23	10 0.43 24	1 0.03 2	0	105 1.72 91	0 0 0	6 0.17 11	0.5 0.01 1	0.2	0.02	--	138 93	68
7-13-64	--	6.9	173	18 0.90 51	5 0.41 23	10 0.43 24	1 0.03 2	0	94 1.54 86	3 0.06 3	7 0.20 11	0.0 0 0	0.1	0.04	--	121 90	86
2N/ 4W-6R 1 S 12-26-63	--	6.8	122	7 0.35 28	3 0.25 20	15 0.65 52	0	44 0.72 59	8 0.17 14	10 0.28 23	2.9 0.05 4	0.2	0.01	--	111 68	10	
7-13-64	--	6.3	124	9 0.45 44	0 0.37 44	13 0.57 56	0	36 0.59 56	8 0.17 16	9 0.25 24	3.0 0.05 5	0	0.01	--	90 60	23	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million percent reactance value										Mineral constituents in parts per million			
				Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total Evaporable Solids (TDS) Computed	Total Hardness as CaCO ₃
SAN JACINTO VALLEY HYDRO UNIT Y0200																	
PERRIS HYDRO SUBUNIT Y02A0																	
PERRIS VALLEY HYDRO SUBAREA Y02A1																	
3S/ 3W- 2L 1 S 11- 7-63	80	8.0	390	26 1.30 17	44 3.62 49	56 2.43 33	3 0.08 1	0	131 2.15 53	20 0.42 10	46 1.30 32	11 0.18 4	20 0.12	278 291	246		
4S/ 3W- 2E 2 S 11-12-63	--	8.2	910	77 3.84 41	24 1.97 21	76 3.30 36	7 0.18 2	0	202 3.31 36	39 0.81 9	162 4.57 50	30 0.48 5	0.2	543 542	291		
4S/ 3W- 6C 1 S 11- 5-63	--	7.8	467	28 1.40 29	3 0.25 5	72 3.13 65	2 0.05 1	0	81 1.33 29	15 0.31 7	99 2.79 60	13 0.21 5	0.6	316 297	83		
4S/ 4W- 1G 1 S 11-12-63	--	7.7	490	29 1.45 27	8 0.66 12	74 3.22 60	2 0.05 1	0	99 1.62 31	21 0.44 8	92 2.59 50	34 0.55 11	0.4	346 334	106		
WINCHESTER HYDRO SUBAREA Y02A3																	
5S/ 2W-26H 2 S 11- 7-63	70	8.0	3650	409 20.41 53	48 3.95 10	320 13.91 36	10 0.26 1	0	146 2.39 6	563 11.72 30	883 24.90 64	6.1 0.10	0.1	2918 2344	1219		
LAKEVIEW HYDRO SUBAREA Y02A4																	
3S/ 2W-32G 1 S 11- 5-63	--	8.0	1390	15 0.75 5	2 0.16 1	311 13.52 93	3 0.08 1	0	225 3.69 27	0	357 10.07 72	7.8 0.13 1	8.0	840 836	46		

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (microhmhos at 25°C)	Mineral constituents in parts per million equivalents per percent reactance value							Mineral constituents in parts per million							
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fuc- ride F	Boron B	Sil- ico SiO ₂	Total Hardness as CaCO ₃		
SAN JACINTO VALLEY HYDRO UNIT Y0200																		
PERRIS HYDRO SUBUNIT Y02A0				LAKEVIEW HYDRO SUBAREA Y02A4														
3S/ 2W-33P 1 S 11- 6-63	85	8.2	1310	27 1.35 10	2 0.16 1	285 12.59 89	0.10 1	4	0	265 4.34 32	9 0.19 1	322 9.08 67	0	3.0	3.10	17	818 402 67	76
4S/ 2W- 7J 3 S 6-19-64	63	8.1	1110	48 2.40 20	12 0.99 6	195 8.48 71	0.10 1	4	0	191 3.13 26	20 0.42 3	304 8.57 71	0.0	1.0	3.60	--	678 682	170
4S/ 2W- 9H 1 S 4-17-64	--	8.2	872	40 2.00 24	11 0.90 11	124 5.39 64	0.13 2	5	6	110 1.80 22	150 3.12 38	112 3.16 38	1.0 0.02	0.8	0.90	--	538 505	145
4S/ 2W-11E 1 S 4-17-64	--	7.9	844	45 2.25 28	6 0.49 6	120 5.22 65	0.13 2	5	0	116 1.90 24	150 3.12 39	109 2.96 37	0.0	0.6	0.50	--	494 557	137
4S/ 3W-12J 1 S 11-13-63	80	7.8	940	24 1.20 12	3 0.25 3	187 8.13 84	0.05 1	2	0	63 1.03 11	44 0.92 10	266 7.50 79	0	1.6	1.52	18	568 576	73
HEMET HYDRO SUBAREA				Y02A2														
4S/ 1W-31D 2 S 11- 5-63	70	7.8	1362	108 5.39 38	14 1.15 8	176 7.39 52	0.20 1	8	0	128 2.10 15	240 5.00 35	247 7.02 50	4 0.06	0.6	0.70	--	1062 897	527
4S/ 2W-11P 1 S 6-19-64	69	7.8	830	25 1.25 14	8 0.16 8	167 7.26 83	0.10 1	4	0	134 2.20 26	126 2.62 30	134 3.78 44	0.0	2.2	2.75	--	542 529	71

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent reactance value				Mineral constituents in parts per million						
				Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	LO ₂ Expt. (25°C) Computed	Total hardness as CaCl ₂	
SAN JACINTO VALLEY HYDRO UNIT Y0200																		
PERRIS HYDRO SUBUNIT Y02A0																		
HEMET HYDRO SUBAREA Y02A5																		
4S/ 2W-26J 1 S 10- 2-63	77	7.8	648	14 0.70 12	1 0.08 1	112 4.87 85	0.05 0.05 1	2	0	183 3.00 50	72 1.50 25	53 1.49 25	2 0.03	1.1	0.30	--	459 347	39
5S/ 1W-20B 1 S 10- 1-63	76	7.8	933	93 4.64 51	11 0.90 10	78 3.39 37	0.15 0.15 2	6	0	177 2.90 33	190 3.96 45	64 1.80 20	13 0.21 2	0.3	0.10	--	632 542	277
5S/ 1W-20Q 2 S 11-14-63	--	8.2	820	63 3.14 37	19 1.56 19	83 3.61 43	4 0.10 1	4	0	173 2.84 34	99 2.06 25	117 3.30 39	11 0.18 2	0.2	0.15	25	512 506	235
5S/ 1W-21A 1 S 10- 1-63	76	7.6	687	58 2.89 48	7 0.58 10	58 2.52 42	3 0.08 1	3	0	162 2.66 42	75 1.56 25	66 1.86 30	13 0.21 3	0.3	0	--	442 360	174
5S/ 1W-27L 1 S 10- 1-63	74	7.6	753	51 2.54 39	9 0.74 11	74 3.22 49	2 0.05 1	2	0	159 2.61 40	40 0.83 13	96 2.71 41	28 0.45 7	0.5	0.20	--	459 379	164
5S/ 2W-24A 2 S 10- 1-63	72	7.7	1994	162 8.08 44	19 1.56 8	196 8.52 46	8 0.20 1	8	0	98 1.61 9	250 5.21 29	398 11.22 62	12 0.19 1	0.5	0.90	--	1143 1095	482

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SANTA ANA DRAINAGE PROVINCE (Y)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million							parts per million equivalents per million reactance value				Mineral constituents in parts per million			
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fer- ride Fe	Ba- ride Ba	Str- ont- ium Sr	I.O.S. Evap Resid- ue as Compd	Total hardness as Calc.	
SAN JACINTO HYDRO SUBUNIT Y02B0																		
SAN JACINTO VALLEY HYDRO UNIT Y0200																		
SAN JACINTO HYDRO SUBAREA Y02B1																		
4S/ 1E-30D 1 S 6-11-64	--	7.9	680	73 3.64 52	15 1.23 17	48 2.09 30	4 0.10	0	176 2.88 40	172 3.58 49	28 0.79 11	0.0	0.4	0.12	--	454 427	244	
3S/ 2W- 7P 1 S 10- 2-63	80	8.4	933	6 0.30 3	4 0.33 3	204 8.87 93	1 0.03	36 1.20 13	323 5.29 56	12 0.25 3	92 2.59 27	9 0.15 2	3.6	0.70	--	687 527	32	
3S/ 2W-21B 1 S 11- 5-63	--	8.5	1675	26 1.30 6	5 0.41 2	425 18.48 91	1 0.03	27 0.90 5	898 14.72 75	0	146 4.12 21	0	1.5	0.47	23	1090 1096	86	
3S/ 2W-23H 1 S 11- 8-63	80	7.8	440	3 0.15 4	0	92 4.00 96	0	0	73 1.20 39	65 1.35 43	20 0.56 18	0	10.0	1.00	32	282 259	8	
4S/ 1W-16C 1 S 10- 7-63	72	7.3	403	36 1.80 47	4 0.33 9	38 1.65 43	2 0.05 1	0	195 3.20 83	7 0.15 4	18 0.51 13	0	0.8	0	--	300 202	107	
5S/ 1W- 1C 1 S 10- 1-63	68	7.7	391	49 2.45 61	6 0.49 12	24 1.04 26	2 0.05 1	0	183 3.00 77	24 0.50 13	14 0.39 10	0	0.2	0	--	302 209	147	

TABLE E-1
 MINERAL ANALYSES OF GROUND WATER 1963/64
 SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million reagent value				Mineral constituents in parts per million						
				Calcium Mg	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total Hardness Equiv. 100°C Equiv. 105°C Computed Colu.3		
LAGUNA HYDRO SUBUNIT														Z0100				
ALISO HYDRO SUBAREA														Z01A3				
Z01AU														Z0100				
75/ 8W-32L 2 S 10-23-63	68	7.9	4400	240 11.98 20	187 15.38 26	735 31.96 54	7 0.18	0	442 7.24 12	1531 31.88 53	752 21.21 35	0	0.6	1.08	19	3914 3690	1369	
4-77-64	--	7.5	5272	--	--	--	--	0	473 7.75	--	755 21.29	--	--	--	--	--	--	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million							Mineral constituents in parts per million						
				Calcium Co	Magnesium Mg	Sodium No	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Bromine Br	Sulfide S ₂ O ₃	TDS Expressed as CaCO ₃	Total hardness CaCO ₃
6S/ 5W-17H 1 S 6-25-64	59	7.3	710	60 2.99 41	24 1.97 27	54 2.35 32	2 0.05 1	0 4.02 53	111 2.31 31	43 1.21 16	0 0	0.13 0.08 22	0.2 0.1	0	0	515 415	248
6S/ 7W-11J 1 S 5-29-64	--	7.4	807	92 4.59 53	35 2.88 33	28 1.22 14	1 0.03	0 4.06 46	205 4.27 49	16 0.45 5	0 0	0.08 0.06 19	0.1 0.1	0	0	574 521	374
6S/ 7W-12B 2 S 5-29-64	--	7.7	753	83 4.14 53	31 2.55 33	24 1.04 13	1 0.03	0 3.64 45	191 3.98 50	14 0.39 5	0 0	0.06 0.06 --	0.1 0	0	0	517 472	335
6S/ 7W-12F 1 S 5-29-64	--	8.2	521	77 3.84 73	7 0.58 11	19 0.83 16	1 0.33 6	10 3.03 59	63 1.31 26	16 0.45 9	0.9 0.01	0.06 0.06 --	0	0	0	336 285	221
6S/ 8W-26B 2 S 5-29-64	--	7.6	1848	112 5.59 28	76 6.25 32	180 7.83 40	3 0.08	0 6.23 31	434 9.04 45	175 4.94 24	0 0	0.13 0.13 --	0.3 0.3	0	0	1278 1198	592
7S/ 6W-4ES1 S 9- 2-64	--	9.3	--	4 0.20	0	88 3.83	1 0.03	--	24 0.50	70 1.97	--	--	8.0	--	--	315	10
7S/ 7W-17PS1 S 6-19-64	--	8.1	1400	158 7.88 47	43 3.54 21	120 5.22 31	6 0.15 1	--	398 8.12 49	124 3.50 21	0.7 0.01	0.25 0.25 --	0	0	0	1176 1013	571
7S/ 7W-19D 2 S 10-21-63	--	7.4	742	103 5.14 66	13 1.07 14	35 1.52 20	2 0.05 1	--	138 2.87 37	27 0.7 10	0.7 0.01	0.04 0.04 --	0.5	0	0	512 465	311

Z0100

SAN JUAN HYDRO UNIT

Z0180

SAN JUAN HYDRO SUBUNIT

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million							Mineral constituents in parts per million						
				Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	I.O.S. Evap. 105°C Computed	Total hardness Ca+Mg
7S/ 7W-32R 1 S 1- 8-64		7.3	1374	74 3.69	14 1.15	192 8.35	2 0.05	0	267 4.38	198 4.12	178 5.02	5.7 0.09	0.8	0.47	24	831	242
7S/ 7W-34NS1 S 6-25-64	95	8.0	870	55 2.74	26 2.14	63 2.74	2 0.05	0	254 4.16	64 1.33	72 2.03	11 0.18	0.6	0.08	--	440	244
7S/ 7W-36A 1 S 1- 8-64		7.1	696	72 3.59	18 1.48	39 1.70	1 0.03	0	217 3.56	93 1.94	48 1.35	8.6 0.14	0.4	0.06	26	444	254
5-15-64	--	7.1	736	65 3.24	25 2.06	--	--	0	220 3.61	108 2.25	55 1.55	--	--	--	--	265	
7S/ 8W-13GS1 S 6-19-64	--	7.3	1600	145 7.24	51 4.19	178 7.74	13 0.33	0	384 6.29	348 7.25	213 6.01	0	0.8	0.33	23	1251	572
7S/ 8W-25B 2 S 1- 8-64		7.1	788	99 4.94	19 1.56	37 1.61	1 0.03	0	227 3.72	145 3.02	46 1.6	1.8 0.03	0.3	0.05	18	532	325
7S/ 8W-25B 3 S 1- 8-64		7.2	794	100 4.99	20 1.64	35 1.52	1 0.03	0	222 3.64	153 3.19	48 1.35	1.6 0.03	0.3	0.02	18	479	332
7S/ 8W-25B 4 S 1- 8-64		7.2	794	101 5.04	19 1.56	40 1.74	1 0.03	0	244 4.00	145 3.02	44 1.24	2.4 0.04	0.3	0.05	23	524	330
				60	19	21			48	36	15					496	

Z0100

SAN JUAN HYDRO UNIT

Z0180

SAN JUAN HYDRO SUBUNIT

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million reactance value				Mineral constituents in parts per million				
				Calcium sum mg	Magne- sum mg	Sodium No	Potas- sum K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fluo- ride F	Boron B	Sili- co B	I.D.S. Exp-105°F Computed
SAN JUAN HYDRO SUBUNIT																
Z0180																
SAN JUAN HYDRO UNIT																
Z0100																
75/ 8W-25N 2 S 5-14-64	--	7.9	1081	127 6.34	28 2.30	--	--	0	253 4.15	277 4.73	76 2.14	--	--	--	--	432
75/ 8W-36C 1 S 10-21-63	7.2	8.69	869	105 5.24 58	24 1.97 22	39 1.70 19	2 0.05 1	--	239 3.92 43	170 3.54 39	51 1.44 16	11 0.18 2	0.3	0.05	20	586 361
75/ 8W-36L 2 S 10-21-63	7.3	1484	1484	125 6.24 42	40 3.29 22	122 5.30 36	3 0.08 1	--	256 4.20 28	327 6.81 46	132 3.72 25	12 0.19 1	0.3	0.04	20	1022 477
75/ 8W-36P 3 S 10-21-63	7.2	1240	1240	180 8.98 69	7 0.58 4	80 3.48 27	2 0.05	--	264 4.33 33	283 5.89 45	91 2.57 20	15 0.24 2	0.3	0.06	20	856 478
75/ 8W-36P 4 S 10-21-63	7.2	1279	1279	123 6.14 46	29 2.38 18	111 4.83 36	2 0.05	--	272 4.46 33	288 6.00 45	105 2.96 22	2.4 0.04	0.4	0.10	18	884 426
5-14-64	--	8.0	1452	143 7.14	35 2.88	--	--	0	263 4.31	355 7.39	129 3.64	--	--	--	--	501
85/ 7W-5C 2 S 10-21-63	7.7	1653	1653	149 7.44	40 3.29	159 6.91	4 0.10	--	287 4.70	422 8.79	139 3.92	--	0.7	0.17	23	1176 537
85/ 7W-5E 1 S 5-14-64	--	8.0	1179	110 5.49	31 2.55	--	--	0	218 3.57	290 6.04	80 2.26	--	--	--	--	402

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million				Mineral constituents in parts per million										
				Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total Dissolved Solids TDS	Total Hardness TDS	
8S/ 7W- 6H 1 S 1- 8-64		7.1	1955	216 10.78 51	50 4.11 19	146 6.35 30	0.08	3	0	281 4.61 21	593 12.35 56	181 5.10 23	0	0.5	0.27	23	1424 1351	745
8S/ 7W- 6H 3 S 10-23-63	64	7.1	1840	256 12.77 55	39 3.21 14	167 7.26 31	0.10	4	0	258 4.23 18	689 14.34 61	177 4.99 21	0	0.4	0.53	26	1564 1486	800
1- 8-64		7.5	1975	220 10.98 52	55 4.52 21	130 5.65 27	0.08	3	0	276 4.52 21	600 12.49 57	168 4.74 22	0	0.5	0.28	24	1459 1336	776
5-14-64		8.0	1848	175 8.73	48 3.95	--	--	--	0	203 3.33	582 12.12	161 4.54	--	--	--	--	--	635
8S/ 7W- 6J 2 S 5-14-64		7.9	1974	189 9.43	46 3.78	--	--	--	0	278 4.56	575 11.97	189 5.33	--	--	--	--	--	661
8S/ 7W- 6J 5 S 1- 8-64		7.4	1882	188 9.38 46	49 4.03 20	160 6.96 34	0.08	3	0	281 4.61 22	532 11.08 53	182 5.13 24	7.7 0.12 1	0.5	0.24	23	1340 1284	671
8S/ 7W- 6K 2 S 5-14-64		7.7	1723	182 9.08	46 3.78	--	--	--	0	264 4.33	536 11.16	143 4.03	--	--	--	--	--	644
8S/ 8W- 1L 1 S 10-23-63	64	8.1	1450	149 7.44 42	73 6.00 34	96 4.17 24	0.05	2	0	276 4.52 26	419 8.72 49	152 4.29 24	9.0 0.15 1	0.2	0.16	23	1146 1059	673

Z0100

SAN JUAN HYDRO UNIT

Z0180

SAN JUAN HYDRO SUBUNIT

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Date sampled	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million										Mineral constituents in parts per million							
					equivalents per percent					reactance value					equivalents per million					reactance value		
						Calcium	Magne- sium	Sodium	Potas- sium	Carbon- ate	Bicar- bonate	Sulfate	Chlo- ride	Ni- trate	Fer- rite	Boron	Sul- fur	Total hardness				
						Co	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SO ₂	Eqv. 100°C	Eqv. 100°C	Eqv. 100°C	Eqv. 100°C	Eqv. 100°C
SAN JUAN HYDRO SUBUNIT																						
Z01B0																						
SAN JUAN HYDRO UNIT																						
Z0100																						
8S/ 8W-1L 1 S 1- 8-64			7.2	1588	200 9.98 58	41 3.37 20	85 3.70 22	0.05	0	0	286 4.69 .27	400 8.33 48	141 3.98 23	0.18 1	0	0.07	23	1119 1044	1119	1044	23	668
5-14-64		--	8.0	1564	187 9.33	36 2.96	--	--	0	0	285 4.67	402 8.37	140 3.95	--	--	--	--	--	--	--	--	615
8S/ 8W-12L 1 S 10-21-63			7.4	1848	212 10.58 51	51 4.19 20	131 5.70 28	3	--	--	378 6.20 30	480 9.99 48	161 4.54 22	1.1 0.02	0.4	0.10	19	1337 1244	1337	1244	19	739
8S/ 8W-12L 3 S 1- 8-64			7.6	1882	236 11.78 53	48 3.95 18	147 6.39 29	3	0	0	389 6.38 29	508 10.58 48	180 5.08 23	0	0.3	0.18	19	1364 1333	1364	1333	19	787
8S/ 8W-12L 4 S 10-23-63		64	7.8	1360	140 6.99 42	64 5.76 32	99 4.30 26	3	0	0	296 4.85 29	409 8.52 50	127 3.58 21	0	0.2	0.19	20	1086 1008	1086	1008	20	613
1- 8-64			7.5	1540	202 10.08 60	42 3.45 21	71 3.09 19	2	0	0	345 5.65 33	384 7.99 47	115 3.24 19	0	0.2	0.07	21	1112 1007	1112	1007	21	677
5-14-64		--	8.1	1540	186 9.28	38 3.13	--	--	0	0	353 5.79	389 8.10	121 3.41	--	--	--	--	--	--	--	--	621
8S/ 8W-14H ? S 10-21-63			7.3	2140	257 12.82 53	69 5.67 23	128 5.57 23	4	--	--	372 6.10 25	579 12.05 50	204 5.75 24	26 0.42 2	0.4	0.06	13	1579 1463	1579	1463	13	925

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				Mineral constituents in parts per million								
				Calcium M g	Magne- sium M g	Sodium No	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Na - Nitrate NO ₃	Fuo- ride F	Boron B	Sil- ica SiO ₂	I.D.S. Evap. 180°C Computed
8S/ 8W-14H 2 S 5-14-64	--	7.9	2747	309 15.42	86 7.07	--	--	0	343 5.62	777 16.18	331 9.33	--	--	--	--	1125
8S/ 8W-14Q 1 S 8-27-64	--	7.2	4500	480 23.95 44	159 13.08 24	404 17.57 32	6 0.15	0	511 8.38 15	1069 22.26 41	830 23.41 43	2.5 0.04	0.8	0.31	3626 3203	1853
8S/ 8W-23A 4 S 7-21-64	--	7.5	2946	333 16.62 44	84 6.91 18	315 13.70 37	10 0.26 1	0	442 7.24 20	970 20.20 56	303 8.54 24	0.2	0.5	0.29	2270 2249	1177
8-27-64	--	7.3	2748	294 14.67 44	97 7.98 24	252 10.96 33	4 0.10	0	393 6.44 19	895 18.63 56	287 8.09 24	0.7 0.01	0.8	0.27	2188 2024	1133
8S/ 8W-23A 7 S 2-21-64	--	7.7	1993	218 10.88 48	52 4.28 19	165 7.17 32	6 0.15 1	0	324 5.31 24	531 11.06 49	220 6.20 27	0	0.3	0.04	1381 1364	759

Z0100

SAN JUAN HYDRO UNIT

Z0180

SAN JUAN HYDRO SUBUNIT

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million				Mineral constituents in parts per million					
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fluo- ride F	Boiron	Sil- ica SiO ₂	Total Dissolved Solids TDS Calcd	Total Dissolved Solids TDS Computed
95/ 7W-10A 1 S 10-10-63	--	7.2	735	56	21	75	3	0	187	107	85	0	0.4	0.16	29	458	226
				2.79	1.73	3.26	0.08	3.06	2.23	2.40	31	40	29	31			
10-23-63	--	7.6	670	43	25	70	3	0	199	93	80	0	0.4	0.23	22	466	211
				2.15	2.06	3.04	0.08	3.26	1.94	2.26	30	44	26	30			
7-20-64	--	8.0	800	48	28	82	3	0	187	110	99	0	0.4	0.16	--	504	235
				2.40	2.30	3.57	0.08	3.06	2.29	2.79	34	38	28	34			
95/ 7W-10A 2 S 10-10-63	--	8.3	790	50	18	98	3	3	177	111	105	0	0.4	0.22	30	492	199
				2.50	1.48	4.26	0.08	2.90	2.31	2.96	36	35	28	36			
10-23-63	--	7.9	800	48	29	99	4	0	204	122	188	0	0.4	0.20	24	552	239
				2.40	2.38	4.30	0.10	3.34	2.54	5.30	47	30	23	47			
95/ 7W-10A 3 S 10-10-63	--	8.2	785	56	23	80	4	0	215	115	89	0	0.4	0.19	27	502	234
				2.79	1.89	3.48	0.10	3.52	2.39	2.51	30	42	28	30			
10-23-63	74	7.5	800	45	33	91	4	0	203	147	88	0	0.4	0.23	29	554	248
				2.25	2.71	3.96	0.10	3.33	3.06	2.48	28	38	34	28			
7-20-64	--	7.7	850	49	34	87	4	0	210	147	96	0	0.2	0.15	--	556	263
				2.45	2.80	3.78	0.10	3.44	3.06	2.71	29	37	33	29			

Z0100

SAN JUAN HYDRO UNIT

Z0100

SAN CLEMENTE HYDRO SUBUNIT

TABLE E-1
 MINERAL ANALYSES OF GROUND WATER 1963/64
 SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million reagent value				Mineral constituents in parts per million					
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Calcium Ca	Magnesium Mg	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total hardness as CaCO ₃	
				SAN CLEMENTE HYDRO SUBUNIT				Z01C0				SAN JUAN HYDRO UNIT				Z0100	
9S/ 7W-10H 1 S 10-23-63	77	7.7	770	46 2.30 30	23 1.89 24	80 3.48 45	4 0.10 1	0	218 3.57 46	97 2.02 26	74 2.09 27	0	0.4	0.28	29	458	210
7-20-64	--	8.2	780	41 2.05 25	28 2.30 28	86 3.74 46	4 0.10 1	0	222 3.64 46	99 2.06 26	79 2.23 28	0	0.2	0.18	--	440 461 446	218

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million equivalents per percent reactance value						Mineral constituents in parts per million							
				Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total dissolved solids TDS Computed	Total Minerals as CaCO ₃
SAN MATEO HYDRO SUBUNIT																	
Z0100																	
SAN JUAN HYDRO UNIT																	
Z0100																	
9S/ 7W-11A 1 S 10-24-63	--	7.9	590	46 2.30 36	19 1.56 24	58 2.52 39	1 0.03	0	171 2.80 43	79 1.64 25	67 1.89 29	11 0.18 3	0.2	0.18	23	394 388	193
9S/ 7W-14G 1 S 10-24-63	64	8.2	750	64 3.19 39	24 1.97 24	69 3.00 37	1 0.03	0	207 3.39 41	100 2.08 25	98 2.76 33	6.3 0.10 1	0.2	0.23	23	506 487	258
9S/ 7W-14L 1 S 10-24-63	64	7.1	1060	74 3.69 30	50 4.11 34	100 4.35 36	2 0.05	0	212 3.47 28	220 4.58 38	147 4.15 34	0	0.4	0.20	19	600 717	390

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (microhmhos at 25°C)	Mineral constituents in				parts per million equivalents per million reactance value				Mineral constituents in parts per million						
				Calcium Mg	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	I.D.S. Evap 180°C Evap 105°C as CaCO ₃	Total Hardness as CaCO ₃	
DE LUZ HYDRO SUBUNIT				Z02B0	SANTA MARGARITA HYDRO UNIT				Z02B2	Z0200								
GAVILAN HYDRO SUBAREA				Z02B3					Z02B3									
85/ 3W- 7D 3 S 6-23-64	85	7.5	1140	74 3.69 32	52 4.28 37	82 3.57 31	0.10 0.10 1	4 0.10 1	0 3.10 26	189 3.10 26	226 4.71 40	142 4.00 34	0	0.4 0.05	0.4 0.05	820 673	399	
VALLECITOS HYDRO SUBAREA				Z02B3					Z02B3									
95/ 3W- 10 1 S 6-12-64	64	7.8	1110	69 3.44 31	41 3.37 30	98 4.26 38	0.10 0.10 1	4 0.10 1	0 3.06 27	187 3.06 27	70 1.46 13	188 5.30 47	95 1.53 13	0.4 0.07	0.4 0.07	672 657	341	
95/ 3W-12M 1 S 6-12-64	68	8.0	620	33 1.65 25	21 1.73 27	71 3.09 48	1 0.03 0.03	1 0.03 0.03	0 2.61 41	159 2.61 41	68 1.42 22	75 2.12 33	14 0.23 4	0.6 0.07	0.6 0.07	384 362	169	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million							Mineral constituents in parts per million						
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- diz CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fuo- ride F	Boron B	Si- co SiO ₂	I.O.S. Eva- lo- gic Com- puted	Total Neces- sary Col.G.
SANTA MARGARITA HYDRO UNIT Z0200																	
MURRIETA HYDRO SUBUNIT Z02C0																	
WILDOMAR HYDRO SUBAREA Z02C1																	
7S/ 4W-2B 2 S 7-15-64	--	8.0	745	49 2.45 31	16 1.32 17	93 4.04 52	1 0.03	0	222 3.64 47	52 1.08 14	103 2.90 37	9 0.15 2	0.2	0.05	--	446 432	189
MURRIETA HYDRO SUBAREA Z02C2																	
7S/ 3W-17E 4 S 7-15-64	--	7.5	770	66 3.29 43	24 1.97 26	56 2.43 31	1 0.03	0	262 4.29 56	35 0.73 9	93 2.62 34	3 0.05 1	0.1	0.05	--	446 407	263
7S/ 3W-17P 2 S 7-15-64	--	8.0	950	80 3.99 40	28 2.30 23	84 3.65 37	1 0.03	0	299 4.90 50	40 0.83 8	137 3.86 39	12 0.19 2	0.1	0.05	--	558 529	315
7S/ 3W-24Q 3 S 7-16-64	--	7.7	440	28 1.40 31	1 0.08 2	69 3.00 67	1 0.03 1	0	128 2.10 48	17 0.35 8	65 1.83 42	5 0.08 2	0.4	0.20	--	240 250	74
7S/ 4W-12H 2 S 7-15-64	--	7.3	400	31 1.55 38	6 0.49 12	45 1.96 49	1 0.03 1	0	104 1.70 43	14 0.29 7	57 1.61 40	25 0.40 10	0.1	0.12	--	248 230	102
FRENCH HYDRO SUBAREA Z02C3																	
6S/ 7W-33E 1 S 7-16-64	--	7.4	660	61 3.04 46	19 1.56 23	45 1.96 30	3 0.08 1	0	160 2.62 40	85 1.77 27	69 1.95 30	13 0.21 3	0.2	0.02	--	436 374	230

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in						parts per million equivalents per million reactance value				Mineral constituents in parts per million				
				Calcium Co	Magnesium Mg	Sodium No	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total hardness as CaCO ₃	I.D.S. Eval. 180°C	Total hardness as CaCO ₃
65/ 1W- 4J 1 S 10- 1-63	80	7.6	605	50	7	58	2	0	183	55	53	13	0	0	421	154		
				2.50 44	0.58 10	2.52 45	0.05 1	3.00 51	1.15 20	1.49 25	0.21 4	0.3	0	328				
SANTA MARGARITA HYDRO UNIT Z0200																		
MURRIETA HYDRO SUBUNIT Z02C0																		
DIAMOND HYDRO SUBAREA Z02C6																		

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in						parts per million equivalents per million reactance value				Mineral constituents in parts per million							
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Flu- oride F	Boron B	Sili- ca SiO ₂	S.S. Total Suspended Solids Equiv. to CaCO ₃	Total Hardness as CaCO ₃				
Date sampled				AGUANGA HYDRO SUBUNIT						SANTA MARGARITA HYDRO UNIT											
				AGUANGA HYDRO SUBAREA						Z02H0				Z02H4				Z0200			
8S/ 1E-36N 1 S 6-11-64	66	8.3	520	38	11	61	2	6	165	14	61	23	0.6	0.24	--	322	140				
				1.90	0.90	2.65	0.05	0.20	2.70	0.29	1.72	0.37				298					
				35	16	48	1	4	51	5	33	7									

TABLE E-1
 MINERAL ANALYSES OF GROUND WATER 1963/64
 SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million				Mineral constituents in parts per million					
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlor- ide Cl	Ni- trate NO ₃	Fluo- ride F	Boron B	Sili- co SiO ₂	Total Hardness as CaCO ₃	
OAKGROVE HYDRO SUBAREA																	
Z0210																	
SANTA MARGARITA HYDRO UNIT																	
Z0212																	
OAKGROVE HYDRO SUBUNIT																	
Z0200																	
OAKGROVE HYDRO SUBAREA																	
9S/ 2E-17K 1 S	74	7.9	665	66	15	55	2	0	220	93	40	12	0.2	0.07	--	410	226
7-16-64				3.29	1.23	2.39	0.05		3.61	1.94	1.13	0.19				391	
				47	18	34	1		53	28	16	3					

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per milliequivalent				Mineral constituents in million milliequivalent per milliequivalent				Mineral constituents in parts per million							
				Calcium C.O.	Magne- sium M.9	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fuo- ride F	Boron B	Sil- ico SiO ₂	I.D.S. Evap. 180°C hardness	Total hardness at 105°C Calcu- lated		
RONSALL HYDRO SUBUNIT Z03AO																			
MISSION HYDRO. SUBAREA Z03A1																			
SAN LUIS REY HYDRO UNIT Z0300																			
10S/ 4W-35N 1 S 10-15-63	--	7.5	930	55 2.74 29	26 2.14 23	98 4.26 46	0.20 0	8 2	0	3.31 36	0.67 7	32 5.05	179 55	7.5 0.12	0.2	0.15	25	638	244
10S/ 4W-35P 1 S 10-15-63	--	7.9	980	39 1.95 20	12 0.99 10	160 6.96 70	0.08 0	3 1	0	198 3.25 33	36 8	204 5.75	59	0	0.1	0.33	25	568	147
10S/ 4W-35R 3 S 10-15-63	70	7.0	1930	181 9.03 43	52 4.28 20	177 7.70 36	0.23 0	9 1	0	220 3.61 17	331 6.89 32	378 10.66 50	5.3 0.09	0.2	0.21	20	1482	666	
11S/ 4W- 2L 1 S 10-15-63	67	6.9	3550	271 13.52 33	141 11.60 29	350 15.22 38	0.10 0	4 0	0	360 5.90 15	209 4.35 11	1050 29.89 74	3.1 0.05	0.2	0.30	44	2614	1257	
11S/ 4W- 3C 2 S 10-15-63	72	7.4	1920	227 11.33 55	3 0.25 1	200 8.70 43	0.18 0	7 1	0	231 3.79 20	71 1.48 8	489 13.79 72	4.0 0.06	0.2	0.27	21	1438	579	
11S/ 4W- 3H 3 S 10-15-63	67	7.4	2330	286 14.27 56	28 2.30 9	200 8.70 34	0.20 0	8 1	0	314 5.15 21	240 5.00 20	525 14.81 59	4.9 0.08	0.2	0.18	20	1702	829	
11S/ 4W- 3H 4 S 10-15-63	68	7.3	6250	381 19.01 26	198 16.28 22	850 36.96 51	0.38 0	15 1	0	386 6.33 9	585 12.18 17	1865 52.59 74	0	0	0.1	0.46	25	5230	1766
11S/ 4W- 4J 2 S 10-24-63	--	8.0	970	81 4.04 38	25 2.06 19	100 4.35 41	0.13 0	5 1	0	138 2.26 21	280 5.83 55	87 2.45 23	0	0	0.2	0.15	11	694	305

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				Mineral constituents in parts per million				Mineral constituents in parts per million						
				Calcium Co	Magne- sium Mg	Sodium No	Potas- sium K	Carben- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fluo- ride F	Baron B	Sili- ca SiO ₂	Total hardness CaCO ₃	I.S. Spec- Equiv. IO ₃ SC	Computed CaCO ₃
RONSALL HYDRO SUBUNIT																		
MISSION HYDRO SUBAREA																		
Z03A0																		
Z03A1																		
SAN LUIS REY HYDRO UNIT																		
Z0300																		
11S/ 4W- 4J 2 S 11-18-63	--	7.5	3300	234 11.68 30	126 10.36 27	380 16.52 43	0.20 0.20 1	8	0	267 4.38 12	296 6.16 17	943 26.59 71	7.0 0.11	0.4	0.29	19	2538 2145	1103
11S/ 4W- 4M 1 S 10-11-63	--	8.2	1320	147 7.34 55	13 1.07 8	110 4.78 36	0.05	2	0	259 4.25 33	107 2.23 17	216 6.09 47	26 0.42 3	0.2	0.18	31	850 780	421
11S/ 4W- 4P 2 S 10-24-63	--	7.3	1650	208 10.38 63	11 0.90 5	120 5.22 31	3	0.08	0	205 3.36 21	138 2.87 18	308 8.69 54	82 1.32 8	0.2	0.18	28	1148 999	564
11S/ 4W- 7L 1 S 11-18-63	68	8.0	1820	37 1.85 10	35 2.88 16	305 13.26 72	13 0.33 2	0	0	104 1.70 9	264 5.50 31	379 10.69 59	6.5 0.10 1	0.6	1.40	1	1202 1094	237
11S/ 4W- 7L 2 S 11-18-63	68	7.8	2420	133 6.64 25	91 7.48 28	290 12.61 47	10 0.26 1	0	0	292 4.79 18	398 8.29 31	482 13.59 51	0	0.4	0.54	13	1654 1561	707
11S/ 4W- 7N 1 S 10-11-63	70	7.2	1220	49 2.45 20	38 3.13 25	145 6.30 51	21 0.54 4	0	0	165 2.70 22	7 0.15 1	333 9.39 77	1.8 0.03	0.2	0.18	2	678 678	279
3- 2-64	68	7.3	1488	83 4.14 28	51 4.19 28	146 6.35 42	12 0.31 2	0	0	268 4.39 29	45 0.94 6	332 9.36 62	29 0.47 3	0.2	0.10	4	870 834	417
11S/ 4W- 8B 1 S 10-11-63	--	7.8	1330	103 5.14 37	31 2.55 18	140 6.09 44	6 0.15 1	0	0	283 4.64 34	158 3.29 24	206 5.81 42	1.8 0.03	0.1	0.27	26	864 811	385

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Date sampled	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million				Mineral constituents in parts per million							
					Calcium Mg	Magne- sium	Sodium No	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fuc- ride F	Boron B	Sil- ico SiO ₂
RONSALL HYDRO SUBUNIT Z03A0					SAN LUIS REY HYDRO UNIT Z0300											
MISSION HYDRO SUBAREA Z03A1																
11S/ 4W- 8E 1 S 10-25-63		--	8.0	1650	187 9.33 54	24 1.97 11	134 5.83 34	7 0.18 1	0 0 0	292 4.79 28	179 3.73 21	314 8.85 51	0 0 0	0.1 0.12 25	1198 1014	565
11S/ 4W- 8N 2 S 10-24-63		--	7.7	2360	210 10.48 41	23 1.89 7	295 12.83 51	3 0.08 0	0 0 0	322 5.28 21	173 3.60 14	575 16.22 65	0 0 0	0.2 0.30 21	1582 1459	619
11S/ 4W- 9F 1 S 10-25-63		68	7.3	3700	307 15.32 38	96 7.90 20	389 16.91 42	7 0.18 0	0 0 0	467 7.65 19	327 6.81 17	901 25.41 64	0 0 0	0.2 0.39 28	2496 2285	1162
11S/ 4W- 9L 1 S 11-18-63		69	7.7	10600	567 28.29 16	413 33.97 20	2570 111.74 64	1 0.03 0	0 0 0	502 8.23 5	6791 141.39 83	771 21.74 13	0 0 0	1.0 1.95 7	11918 11370	3115
11S/ 4W- 9N 1 S 11-18-63		--	7.6	1400	79 3.94 26	21 1.73 11	217 9.44 62	2 0.05 0	0 0 0	334 5.47 37	19 0.40 3	312 8.80 59	9.1 0.15 1	0.8 0.39 22	872 846	284
11S/ 4W-18C 6 S 10-11-63		70	7.5	2650	266 13.27 48	29 2.38 9	275 11.96 43	9 0.23 1	0 0 0	318 5.21 19	372 7.75 28	514 14.49 53	0 0 0	0.1 0.27 17	1728 1639	783
11S/ 4W-18E 1 S 10-11-63		70	7.0	1240	40 2.00 16	19 1.56 12	207 9.00 71	1 0.03 0	0 0 0	89 1.46 12	114 2.37 19	303 8.54 68	7.5 0.12 1	0.12 0.12 2	878 737	178
11S/ 4W-18F 1 S 1-13-64		68	7.5	2660	132 6.59 22	132 10.86 37	277 12.04 40	10 0.26 1	0 0 0	354 5.80 19	473 9.85 33	505 14.24 48	2.5 0.04 0	0.4 0.26 23	1845 1729	873

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million										Mineral constituents in parts per million					
				Calcium Co	Magne-sium Mg	Sodium No	Potas-sium K	Carbon-ate CO ₃	Bicar-bonate HCO ₃	Sulfate SO ₄	Chlo-ride Cl	Ni-trate NO ₃	Fluo-ride F	Baron B	Sili-co SiO ₂	I.D.S. Exap 180°C as Compued Co.Cc3	Total hardness as Ca.Cc3		
BONSALL HYDRO SUBUNIT				Z03A0										Z0300					
MISSION HYDRO SUBAREA				Z03A1										Z0301					
11S/ 5W-13L 1 S 10-10-63	--	7.6	3100	317 15.82 45	90 7.40 21	270 11.74 33	0.31 0.31 1	12 0.31 1	0	0	315 5.16 15	582 12.12 35	621 17.51 50	0	0.2	0.30	23	2430 2070	1162
3- 3-64	--	7.7	3135	294 14.67 41	127 10.44 29	240 10.44 29	0.26 0.26 1	10 0.26 1	0	0	344 5.64 16	547 11.39 32	665 18.75 52	1.2 0.02	0.4	0.12	29	2320 2083	1257
11S/ 5W-13L 2 S 10-10-63	70	7.9	18000	1160 57.88 27	175 14.39 7	3200 139.14 66	0.51 0.51 1	20 0.51 1	0	0	95 1.56 1	2078 43.26 20	5900 166.38 79	0	0.2	0.76	3	13320 12584	3616
3- 2-64	64	7.3	17730	261 13.02 6	800 65.79 31	3050 132.61 63	0.46 0.46 1	18 0.46 1	0	0	81 1.33 1	2056 42.81 20	5975 168.50 79	6.2 0.10	0.6	0.96	3	13340 12211	3944
11S/ 5W-13N 2 S 3-12-64	67	7.6	1667	32 1.60 10	40 3.29 21	236 10.26 66	0.33 0.33 2	13 0.33 2	0	0	173 2.84 18	192 4.00 26	310 8.74 56	6 0.10 1	0.3	0.16	--	933 914	245
11S/ 5W-13N 3 S 11-18-63	--	8.0	7000	212 10.58 14	162 13.32 17	1227 53.35 69	0.05 0.05 1	2 0.05 1	0	0	123 2.02 3	53 1.10 1	2598 73.26 96	0	0.2	0.22	1	4962 4316	1196
11S/ 5W-13P 1 S 10-10-63	70	6.6	15200	389 19.41 11	361 29.69 18	2750 119.57 71	0.84 0.84 1	33 0.84 1	0	0	50 0.82 4	304 6.33 4	5670 159.89 96	0	0.1	0.40	3	11480 9535	2457
11S/ 5W-13P 2 S 3-12-64	68	7.1	15460	326 16.27 10	410 33.72 20	2630 114.35 69	0.47 0.47 1	47 0.47 1	0	0	43 0.70 4	316 6.58 4	5625 158.63 95	21 0.34	0.6	1.00	--	9845 9398	2501

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million						Mineral constituents in parts per million									
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fluo- ride F	Boron B	Sili- co SiO ₂	Total Dissol- ved Solids Computed CaCl ₂			
Date sampled				Z03A0						Z03A1					Z0300				
RONSALL HYDRO SUBUNIT				MISSION HYDRO SUBAREA															
11S/ 5W-130 3 S 10- 9-63	70	7.7	11400	693 34.58 26	294 24.18 18	1650 71.74 55	23 0.59	0	247 4.05 3	554 11.53 9	4028 113.59 88	0	0.1	0.15	22	8840 7386	2940		
3- 2-64	--	7.0	10893	670 33.43 27	317 26.07 21	1440 62.61 51	22 0.56	0	256 4.20 3	535 11.14 9	3800 107.16 87	5.0 0.08	0.4	0.22	26	8000 6941	2977		
11S/ 5W-23E 1 S 11-18-63	--	6.5	15300	405 20.21 10	461 37.91 19	3300 143.48 71	6 0.15	0	24 0.39	320 6.66 3	6852 193.23 96	0	0.2	0.56	18	12464 11375	2908		
3-12-64	67	5.6	19920	387 19.31 9	593 48.77 22	3405 148.05 68	74 1.89 1	0	10 0.16	610 12.70 6	7228 203.83 94	0	0.7	0.66	1	14270 12304	3407		
11S/ 5W-24B 2 S 10-10-63	70	7.9	1820	74 3.69 20	37 3.04 16	270 11.74 63	10 0.26 1	0	85 1.39 8	120 2.50 14	518 14.61 79	0	0.1	0.18	3	1172 1074	337		
3-13-64	68	7.7	2695	126 6.29 23	104 8.55 31	292 12.70 46	11 0.28 1	0	171 2.80 10	270 5.62 20	690 19.46 70	2.5 0.04	0.2	0.16	6	1740 1586	743		
BONSALL HYDRO SUBAREA				Z03A2															
10S/ 1W-30P 1 S 3-17-64	72	7.2	1185	91 4.54 38	46 3.78 31	83 3.61 30	5 0.13 1	0	240 3.93 33	47 0.98 8	228 6.43 54	30 0.48 4	0.4	0.04	49	824 697	416		

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million percent reactance value				Mineral constituents in parts per million					
				Calcium Co	Magne- sium Mg	Sodium Na	Potass- ium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fluo- ride F	Bor- on B	Sili- ca SiO ₂	IDS Ex- posed to Evap 105°C Computed	Total Hardness CaCO ₃
Date sampled				Ca	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂	IDS Ex- posed to Evap 105°C Computed	Total Hardness CaCO ₃
SAN LUIS REY HYDRO UNIT																	
Z03A0																	
Z03A2																	
BONSALL HYDRO SUBUNIT																	
BONSALL HYDRO SUBAREA																	
10S/ 2W-22N 1 S 6-17-64	--	7.3	1135	77 3.84 32	44 3.62 31	98 4.26 36	4 0.10 1	0	281 4.61 39	82 1.71 15	180 5.08 43	24 0.39 3	0.5	0.09	39	740 687	373
10S/ 3W-3M 1 S 6-17-64	--	7.2	835	50 2.50 28	37 3.04 35	74 3.22 37	1 0.03	0	273 4.47 50	61 1.27 14	103 2.90 33	14 0.23 3	0.5	0.09	48	545 523	277
10S/ 3W-11G 1 S 10-25-63	66	8.0	1140	112 5.59 39	51 4.19 29	98 4.26 30	7 0.18	0	248 4.06 28	283 5.89 41	153 4.31 30	6.7 0.11 1	0.2	0.15	28	920 861	489
10S/ 3W-12C 1 S 10-25-63	--	7.5	1480	122 6.09 35	68 5.59 32	130 5.28 32	8 0.20 1	0	322 5.28 30	346 7.20 40	190 5.36 30	0	0.2	0.18	29	1130 1052	584
10S/ 3W-16F 8 S 10-25-63	66	7.2	2200	238 11.88 37	158 12.99 41	160 6.96 22	7 0.18	0	177 2.90 9	1124 23.40 74	191 5.39 17	3.6 0.06	0.2	0.25	31	2162 2000	1244
10S/ 3W-20P 3 S 10-25-63	--	7.5	2150	249 12.43 43	41 3.37 12	300 13.04 45	4 0.10	0	491 8.05 27	532 11.06 38	363 10.24 35	0	0.4	0.20	28	1820 1759	791
10S/ 4W-1R 1 S 6-17-64	--	7.2	1037	59 2.94 26	51 4.19 38	90 3.91 35	4 0.10 1	0	159 2.61 24	209 4.35 40	131 3.69 34	20 0.32 3	0.3	0.08	55	780 697	357

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Date sampled	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million										Mineral constituents in parts per million				
					Calcium Ca	Magne- sium Mg	Sodium Na	Potass- ium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	No- trate NO ₃	Fuc- ride F	Boron B	Sulf- ate SO ₂	I.D.C. Ex- posed to Compu- ter	Total Hardness CaCO ₃	
SAN LUIS REY HYDRO UNIT Z0300																			
BONSALL HYDRO SUBUNIT Z03A0					VALLEY CENTER HYDRO SUBAREA Z03A4														
11S/ 1W- 7L 1 S	6-17-64	72	8.2	450	27	10	59	2	0	191	16	40	10	0.2	0.07	--	296	109	
					1.35	0.82	2.57	0.05		3.13	0.33	1.13	0.16				258		
					28	17	54	1		66	7	24	3				368	177	
11S/ 1W- 7P 1 S	6-17-64	70	7.4	585	38	20	54	3	0	205	40	53	20	0.2	0.10	--	329		
					1.90	1.64	2.35	0.08		3.36	0.83	1.49	0.32				920	456	
					32	27	39	1		56	14	25	5				877		
11S/ 2W-13R 1 S	6-17-64	--	7.5	1451	84	60	140	2	0	388	75	246	36	0.5	0.04	43	438	206	
					4.19	4.93	6.09	0.05		6.36	1.56	6.94	0.58				407		
					27	32	40			41	10	45	4				354	161	
WOODS HYDRO SUBAREA Z03A5																			
11S/ 1W-22F 1 S	6-17-64	66	8.1	730	41	25	74	2	--	239	43	73	31	0.2	0.10	--	438	206	
					2.05	2.06	3.22	0.05		3.92	0.90	2.06	0.50				280		
					28	28	44			53	12	28	7				341		
11S/ 1W-22E 2 S	6-17-64	70	8.3	600	33	19	67	2	5	220	33	53	21	0.2	0.10	--	354	161	
					1.65	1.56	2.91	0.05	0.17	3.61	0.69	1.49	0.34				280		
					27	25	47	1	3	57	11	24	5				310	132	
RINCON HYDRO SUBAREA Z03A6																			
11S/ 1W-16R 2 S	6-17-64	70	7.9	495	33	12	56	2	0	189	17	49	18	0.2	0.10	--	310	132	
					1.65	0.99	2.43	0.05		3.10	0.35	1.38	0.29				280		
					32	19	47	1		61	7	27	6				310	132	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Date sampled	Temp when sampled in°F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				Mineral constituents in parts per million										
					Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total TDS Emp. DSC Computed CaCO ₃		
MONSERATE HYDRO SUBUNIT PALA HYDRO SUBAREA					SAN LUIS KEY HYDRO UNIT														
Z03B0					Z0300														
Z03B1					Z0301														
9S/ 2W-230 1 S 6-12-64		74	8.2	650	4.3 2.15 31	2.38 34	2.43 35	0.08 1	3	0	264 4.33 63	29 0.60 9	66 1.86 27	0.05 1	0.1	0.29	--	4.04 359	227
9S/ 2W-26H 1 S 6-12-64		72	8.2	635	4.8 2.40 34	2.27 32	2.26 32	0.10 1	4	0	252 4.13 59	60 1.25 18	56 1.58 23	4 0.06 1	0.2	0.05	--	392 375	231
9S/ 2W-26P 1 S 10-25-63		--	8.0	720	8.1 4.04 51	1.9 1.56 20	2.26 28	0.13 2	5	0	195 3.20 40	160 3.33 42	53 1.49 19	0	0.2	0.08	32	522 498	280
9S/ 2W-310 1 S 10-25-63		70	7.7	1410	14.0 6.99 44	5.5 4.52 29	4.13 26	0.08 1	3	0	344 5.64 37	171 3.56 23	214 6.03 39	12 0.19 1	0.2	0.23	35	1056 895	576
PAUMA HYDRO SUBAREA					Z03B2														
10S/ 1E- 9K 1 S 6-11-64		60	7.4	145	14 0.70 49	2 0.16 11	12 0.52 36	2 0.05 3	2	0	55 0.90 60	20 0.42 28	6 0.17 11	0	0.1	0.02	--	112 83	43
10S/ 1W-16H 1 S 11-21-63		--	7.8	445	4.5 2.25 44	1.3 1.07 21	4.0 1.74 34	3 0.08 2	3	0	183 3.00 56	55 1.15 22	39 1.10 21	3.6 0.06 1	0.2	0.05	30	302 319	166
10S/ 1W-22P 1 S 11-21-63		--	7.7	520	4.5 2.25 38	1.7 1.40 24	5.0 2.17 37	3 0.08 1	3	0	206 3.38 58	58 1.21 21	41 1.16 20	5.8 0.09 2	0.2	0.09	27	348 348	183

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent reactance value				Mineral constituents in parts per million					
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Na- trate NO ₃	Fus- sile F	Boron B	Sul- fo- S O ₂	I.D.S. Equiv. (ppm) Equiv. (ppm) of CaCl ₂	Total hardness of CaCl ₂
WARNER HYDRO SUBUNIT Z0300																	
WARNER HYDRO SUBAREA Z03C1																	
10S/ 3E-25DS1 S 11-20-63	129	9.4	420	5 0.25	1 0.08	99 4.30	2 0.05	39 1.30	43 0.70	45 0.94	47 1.33	0	8.0	0.71	62	372	17
10S/ 3E-26L 1 S 11-20-63	--	7.9	400	5 32 33	2 0.82 17	92 54 48	1 3 2	0 0.08 2	16 216 76	22 0.15 3	31 27 16	0.18 0.18 4	0.2	0.11	20	268	121
11S/ 3E-3M 1 S 11-20-63	--	7.6	265	4 22 1.10	4 0.33	30 1.30	1 0.03	0 0	121 1.98	12 0.25	14 0.39	3.6 0.06	0.4	0.06	22	156	72
11S/ 3E-18P 1 S 11-20-63	--	7.4	280	40 24 38	12 7 0.58	47 30 1.30	1 3	0 0	74 120	9 6	15 22	2 20	0.1	0.06	38	210	89
11S/ 4E-150 1 S 6-16-64	70	8.2	670	51 2.54 35	14 1.15 16	79 3.43 48	2 0.05 1	0 0	221 3.62 51	83 1.73 24	63 1.78 25	0	0.6	0.07	--	418	185
11S/ 5E-18P 1 S 6-16-64	66	8.1	645	50 2.50 36	12 0.99 14	80 3.48 50	2 0.05 1	0 0	264 4.33 62	20 0.42 6	72 2.03 29	15 0.24 3	0.2	0.07	--	390	175

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million						Mineral constituents in parts per million													
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fuo- ride F	Boron B	Silic- ic SiO ₂	Total hardness of CaCO ₃							
Date sampled				Z04B0						Z0400													
CARLSBAD HYDRO SUBAREA													Z04B1			CARLSBAD HYDRO UNIT					Z0400		
VISTA HYDRO SUBUNIT													Z04B0			CARLSBAD HYDRO SUBAREA					Z04B1		
11S/ 4W-25E 1 S 10-29-63	--	7.5	1550	81 4.04 25	74 6.09 37	143 6.22 38	5 0.13 1	0	270 4.43 27	178 3.71 23	272 7.67 47	27 0.44 3	0.2	0.17	32	1042 945	507						
11S/ 4W-27M 1 S 6-18-64	--	8.0	3436	232 11.58 33	66 5.43 15	420 18.26 52	1 0.03	0	376 6.16 17	103 2.14 6	950 26.79 76	7.4 0.12	0.7	0.44	42	2710 2007	851						
11S/ 4W-33F 1 S 10-29-63	--	7.9	2080	109 5.44 25	52 4.28 20	280 12.17 55	2 0.05	0	256 4.20 19	106 2.21 10	541 15.26 70	0	0.2	0.67	18	1336 1235	486						
11S/ 4W-33G 1 S 10-29-63	--	8.1	1460	60 2.99 20	44 3.62 24	195 8.48 56	4 0.10	0	189 3.10 21	77 1.60 11	362 10.21 68	2.2 0.04	0.4	0.38	23	916 861	331						
6-18-64	--	8.1	1513	65 3.24 22	43 3.54 24	185 8.04 54	3 0.08	0	207 3.39 23	69 1.44 10	357 10.07 67	2.5 0.04	0.6	0.34	43	950 870	339						
VISTA HYDRO SUBAREA													Z04B2			CARLSBAD HYDRO UNIT					Z0400		
11S/ 3W-17L 1 S 6-18-64	68	7.0	2183	139 6.94 29	135 11.10 46	135 5.87 24	3 0.08	0	339 5.56 23	247 5.14 22	416 11.73 49	89 1.44 6	0.4	0.12	70	1690 1401	903						
11S/ 3W-19M 1 S 10-29-63	69	7.4	2180	153 7.63 31	110 9.05 37	177 7.70 32	1 0.03	0	436 7.15 29	249 5.18 21	423 11.93 49	20 0.32 1	0.1	0.26	43	1546 1391	835						

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Date sampled	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million reactance					Mineral constituents in parts per million								
					Calcium Mg	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fus- sile F	Bar- ite Ba	Str- ont- ium Sr	Tot- al Hard- ness by com- put- ation	
AGUA HEDIONDA HYDRO SUBUNIT Z04CO					CARLSBAD HYDRO UNIT Z0400													
AGUA HEDIONDA HYDRO SUBAREA Z04C1					55	38	240	20	0	17	125	487	0	0.2	0.43	--	1080	294
12S/ 4W-3R 1 S 6-20-64	--	6.4	1630	2.74 16	3.13 19	10.44 62	0.51 3	0.28 2	0.28 2	2.60 16	13.73 83					974		
12S/ 4W-9G 1 S 6-17-64	--	7.8	3058	142 7.09 23	82 6.74 22	390 16.96 55	3 0.08	0	395 6.47 21	249 5.18 17	680 19.18 62	2.5 0.04	0.7	0.58	35	1910	692	
12S/ 4W-10D 1 S 6-17-64	68	7.9	2950	196 9.78 30	68 5.59 17	390 16.96 52	6 0.15	0	432 7.08	248 5.16	684 19.29	42 0.68	0.2	0.60	--	1726	769	
12S/ 4W-10E 1 S 6-10-64	--	8.3	1808	107 5.34 29	49 4.03 22	200 8.70 48	4 0.10	7 0.23	288 4.72	66 1.37	420 11.84	4.9 0.08	0.8	0.28	21	1160	469	
12S/ 4W-10H 3 S 10-29-63	--	7.3	2430	177 8.83 31	83 6.83 24	290 12.61 44	3 0.08	0	394 6.46	131 2.73	664 18.72	0	0.4	0.30	23	1760	784	
12S/ 4W-10J 1 S 10-29-63	--	7.9	1825	92 4.59 24	55 4.52 24	225 9.78 52	2 0.05	0	260 4.26	113 2.35	433 12.21	0	0.2	0.45	22	1122	456	
12S/ 4W-11E 1 S 6-18-64	70	8.3	1650	64 3.19 18	56 4.61 26	220 9.57 55	5 0.13	5 0.17	326 5.34	49 1.02	379 10.69	0	0.6	0.38	--	992	370	
12S/ 4W-11P 1 S 6-10-64	69	7.6	1730	78 3.89 22	62 5.10 29	200 8.70 49	3 0.08	0	276 4.52	62 1.29	424 11.96	0	0.4	0.31	--	1072	450	
																965		

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million percent reactance value				Mineral constituents in parts per million					
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlor- ide Cl	Ni- trate NO ₃	Fluo- ride F	Bor- on B	Sili- co SiO ₂	I.D.S. Evap. 100°C Evap. 105°C Computed CaCO ₃	Total hardness as CaCO ₃
AGUA HEDIONDA HYDRO SUBUNIT Z04C0																	
AGUA HEDIONDA HYDRO SUBAREA Z04C1																	
CARLSBAD HYDRO UNIT Z0400																	
12S/ 4W-15M 1 S	65	7.0	2754	176	99	294	13	0	54	802	424	5	2.1	1.50	--	1990	847
6-19-64				8.78	8.14	12.78	0.33		0.89	16.70	11.96	0.08				184.3	
				29	27	43	1		3	56	40						

TABLE E-1
 MINERAL ANALYSES OF GROUND WATER 1963/64
 SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million										Mineral constituents in parts per million			
				equivalents per percent					reactance value					Fuc ride F	Borcn B	Sul- co SO ₂	I.D.S. Exap BOC address as CoCC3
Date sampled	Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	0.6	0.33	26	788				
CARLSBAD HYDRO UNIT																	
				Z0400													
ENCINAS HYDRO SUBUNIT																	
				Z0400													
12S/ 4W-26H 1 S 10-30-63	76	8.2	1400	46 2.30 16	30 2.47 17	215 9.35 66	2 0.05	0	221 3.62 26	92 1.92 14	297 8.38 60	0	0.6	0.33	26	788	239
12S/ 4W-28Q 1 S 6-18-64	70	7.9	1900	10 0.50 3	1 0.08	430 18.70 97	2 0.05	0	102 1.67 9	24 0.50 3	606 17.09 89	0	0.2	0.88	--	1228	29

TABLE E-1
 MINERAL ANALYSES OF GROUND WATER 1963/64
 SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				Mineral constituents in parts per million										
				Calcium	Magnesium	Sodium	Potassium	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Barium	Silica	Total Hardness as CaCO ₃			
Date sampled				Ca	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂	I.D.S. Exap. 100°C as Computed	Total Hardness as CaCO ₃	
SAN MARCOS HYDRO SUBUNIT Z04E0																		
BATIOUITOS HYDRO SUBAREA Z04E1																		
13S/ 4W-20 1 S	--	6.9	1513	85	58	151	3	0	83	341	235	26	0.4	0.20	37	1090	451	
6-18-64				4.24	4.77	6.57	0.08		1.36	7.10	6.63	0.42				977		
				27	30	42	1		9	46	43	3						
TWIN OAKS HYDRO SUBAREA Z04E3																		
11S/ 3W-25N 2 S	68	7.0	1320	82	69	85	3	0	259	64	271	40	0.3	0.09	63	980	488	
6-18-64				4.09	5.67	3.70	0.08		4.25	1.33	7.64	0.65				805		
				30	42	27	1		31	10	55	5						
CARLSBAD HYDRO UNIT Z0400																		

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million										Mineral constituents in parts per million						
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	Total Hardness	Calcium	Fluoride	Iron	Copper
Date sampled				Co	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂	Ca	Fe	Cu	Zn	
CARLSBAD HYDRO UNIT																				
Z04F0																				
ESCONDIDO HYDRO SUBUNIT																				
SAN ELIJO HYDRO SUBAREA																				
Z04F1																				
12S/ 2W-14F 1 S	--	7.5	940	46	33	104	4	0	182	63	177	19	0.2	0.13	45	658	251			
11- 8-63				2.30	2.71	4.52	0.10		2.98	1.31	4.99	0.31				581				
				24	28	47	1		31	14	52	3								
13S/ 3W- 9E 1 S	--	8.3	1020	45	48	117	1	4	342	89	59	120	0.2	0.20	22	692	310			
12-19-63				2.25	3.95	5.09	0.03	0.13	5.61	1.85	1.66	1.94				674				
				20	35	45		1	50	17	15	17								
13S/ 4W-23H 1 S	--	7.0	2700	136	81	350	5	0	205	395	613	7	0.8	0.43	--	1842	673			
6-26-64				6.79	6.66	15.22	0.13		3.36	8.22	17.29	0.11				1689				
				24	23	53			12	28	60									
13S/ 4W-24P 1 S	72	7.7	2213	71	2	373	6	0	39	254	505	2.5	2.1	3.20	--	1191	185			
3-10-64				3.54	0.16	16.22	0.15		0.64	5.29	14.24	0.04				1238				
				18	1	81	1		3	26	70									
13S/ 4W-25J 1 S	--	8.0	3450	190	81	490	6	0	252	400	886	1.8	0.4	1.00	28	2462	808			
12-18-63				9.48	6.66	21.31	0.15		4.13	8.33	24.99	0.03				2208				
				25	18	57			11	22	67									
ESCONDIDO HYDRO SUBAREA																				
Z04F2																				
12S/ 2W- 2K 1 S	--	7.6	2200	159	109	218	5	0	275	499	373	66	0.4	0.21	44	1808	845			
11- 8-63				7.93	8.96	9.48	0.13		4.51	10.39	10.52	1.06				1609				
				30	34	36			17	39	40	4								
12S/ 2W- 4P 3 S	--	7.2	1470	96	41	137	5	0	220	110	259	53	0.2	0.18	34	964	408			
11- 8-63				4.79	3.37	5.96	0.13		3.61	2.29	7.30	0.85				843				
				34	24	42	1		26	16	52	6								

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million										Mineral constituents in equivalents per million					Mineral constituents in parts per million												
				Calcium	Magnesium	Sodium	Potassium	Carbonate	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	Total hardness as CaCO ₃	Ca	Mg	Na + K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂	Computed			
CARLSBAD HYDRO UNIT																															
Z0400																															
ESCONDIDO HYDRO SUBUNIT																															
Z04F0																															
ESCONDIDO HYDRO SUBAREA																															
Z04F2																															
12S/ 2W-9C 3 S 11- 8-63	--	7.2	940	76	22	100	4	0	182	173	117	0.2	0.18	16	680	280	3.79	1.81	4.35	0.10	4	2.98	3.60	3.30	0.13	0.2	0.18	16	680	280	
				38	18	43	1	30	30	36	33				606																
12S/ 2W-12E 1 S 11- 8-63	--	7.6	1970	106	97	220	5	0	227	272	288	0.2	0.23	4	1598	664	5.29	7.98	9.57	0.13	5	3.72	5.66	8.12	5.16	0.2	0.23	4	1598	664	
				23	35	42	1	16	16	25	36				1467																
12S/ 2W-12E 2 S 11- 8-63	--	7.6	1300	54	45	165	1	0	284	87	224	0.1	0.19	31	858	320	2.69	3.70	7.17	0.03	0	4.65	1.81	6.32	0.61	0.1	0.19	31	858	320	
				20	27	53		35	35	14	47				785																
12S/ 2W-17H 1 S 6-24-64	81	7.4	1670	87	75	165	6	0	224	317	181	0.2	0.08	--	1166	526	4.34	6.17	7.17	0.15	6	3.67	6.60	5.10	2.79	0.2	0.08	--	1166	526	
				24	35	40	1	20	20	36	28				1114																
12S/ 2W-20G 2 S 11- 8-63	--	7.1	8000	677	456	670	14	0	556	303	3018	0.1	0.20	15	6934	3567	33.78	37.50	29.13	0.36	14	9.11	6.31	85.11	0.15	0.1	0.20	15	6934	3567	
				34	37	29		9	9	6	85				5436																
12S/ 2W-20K 1 S 11- 8-63	--	7.2	7400	593	404	605	12	0	580	231	2681	0.1	0.00	33	4980	3143	29.59	33.22	26.31	0.31	12	9.51	4.81	75.60	0.08	0.1	0.00	33	4980	3143	
				33	37	29		11	11	5	84				4894																
12S/ 2W-20K 4 S 11- 8-63	--	6.8	1330	93	56	97	4	0	79	102	286	0.2	0.27	40	1042	463	4.64	6.61	4.22	0.10	4	1.29	2.12	8.07	1.87	0.2	0.27	40	1042	463	
				34	34	31	1	10	10	16	60				833																
12S/ 2W-21D 2 S 11- 8-63	--	7.8	2000	70	57	330	2	0	443	238	334	0.6	0.40	31	1138	409	3.49	4.66	14.35	0.05	2	7.26	4.96	9.42	0.39	0.6	0.40	31	1138	409	
				15	21	64		33	33	23	43				1305																

TABLE E-1
 MINERAL ANALYSES OF GROUND WATER 1963/64
 SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million				Mineral constituents in parts per million				Mineral constituents in parts per million					
				Calcium Co	Magnesium Mg	Sodium No	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total Hardness as CaCO ₃	
CARLSBAD HYDRO UNIT Z0400																	
ESCONDIDO HYDRO SUBUNIT Z04F0																	
LAKE WOHLFORD HYDRO SUBAREA Z04F3																	
11S/ 1W-27F 1 S 6-17-64	65	7.8	57J	38 1.90 32	18 1.48 25	59 2.57 43	1 0.03 1	0	188 3.08 51	38 0.79 13	72 2.03 34	6 0.10 2	0.2	0.05	--	358 325	169
11S/ 1W-34G 1 S 6-17-64	64	8.0	440	25 1.25 27	10 0.82 18	57 2.48 54	1 0.03 1	0	129 2.11 48	25 0.52 12	51 1.44 32	23 0.37 8	0.4	0.05	--	282 256	104

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				Mineral constituents in parts per million									
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total Dissolved Solids TDS	Total Hardness as CaCO ₃
Date sampled																	
SAN DIEGUITO HYDRO SUBUNIT Z0500																	
SAN DIEGUITO HYDRO SUBAREA Z05A1																	
SAN DIEGUITO HYDRO SUBUNIT Z05A0																	
13S/ 3W-33M 1 S	67	7.8	3514	18	9	132	71	0	1830	1	184	3.1	0.4	0.20	--	560	82
3- 6-64				0.90	0.74	5.74	1.82		29.99	0.02	5.19	0.05				1319	
				10	8	62	20		85		15						
14S/ 3W- 7C 2 S	64	7.8	11100	294	298	1918	43	0	782	788	3320	9.3	1.0	1.40	--	7501	1961
3-11-64				14.67	24.51	83.39	1.10		12.82	16.41	93.62	0.15				7057	
				12	20	67	1		10	13	76						
14S/ 3W- 7C 3 S	--	8.4	4800	86	62	1000	26	12	417	520	1223	5.7	0.8	1.14	28	3074	470
10-30-63				4.29	5.10	43.48	0.66	0.40	6.83	10.83	34.49	0.09				3170	
				8	10	81	1	1	13	21	66						
14S/ 3W- 7C 6 S	68	6.6	25400	319	593	6170	141	0	573	2734	9600	27	1.6	3.40	--	19080	3237
3- 6-64				15.92	48.77	268.27	3.61		9.39	56.92	270.72	0.44				19871	
				5	14	80	1		3	17	80						
14S/ 3W- 7E 2 S	69	7.4	7800	237	192	1400	30	0	278	1019	2234	1.8	0.6	2.18	13	5260	1382
10- 9-63				11.83	15.79	60.87	0.77		4.56	21.22	63.00	0.03				5266	
				13	18	68	1		5	24	71						
3- 9-64	65	7.5	6494	212	163	1055	20	0	264	851	1720	7.4	0.8	2.25	8	4540	1200
				10.58	13.41	45.87	0.51		4.33	17.72	48.50	0.12				4169	
				15	19	65	1		6	25	69						
14S/ 3W- 7L 1 S	--	7.6	2370	143	54	247	8	0	174	115	608	2.5	0.4	0.26	--	1326	579
3-11-64				7.14	4.44	10.74	0.20		2.85	2.39	17.15	0.04				1264	
				32	20	48	1		13	11	76						
14S/ 3W- 7L 5 S	--	7.1	2827	304	68	234	7	0	307	567	485	2.5	0.8	0.22	--	1969	1039
3- 6-64				15.17	5.59	10.17	0.18		5.03	11.80	13.68	0.04				1819	
				49	18	33	1		16	39	45						

TABLE E-1
 MINERAL ANALYSES OF GROUND WATER 1963/64
 SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Date sampled	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					Mineral constituents in parts per million							
					Calcium Mg	Magnesium Mg	Sodium No	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total Hardness at 105°C Colloids
SAN DIEGO HYDRO SUBUNIT Z0500																	
SAN DIEGUITO HYDRO SUBAREA Z05A1																	
SAN DIEGUITO HYDRO SUBUNIT Z05A0																	
14S/ 4W- 1R 4 S 10- 8-63		--	7.4	4700	329 16.42 30	36 2.96 5	800 34.78 64	22 0.56 1	0	144 2.36 4	863 17.97 33	1202 33.90 63	0	1.2	2.28 18	3190 3344	970
14S/ 4W-12H 1 S 10- 8-63		--	7.0	27000	367 18.31 6	60 4.93 2	6660 289.58 92	138 3.53 1	0	795 13.03 4	2846 59.25 18	8918 251.49 78	0	0.4	5.50 17	20220 19403	1163
14S/ 4W-12L 1 S 8-13-54		70	7.4	3759	98 4.89 12	32 2.63 6	740 32.18 79	32 0.82 2	0	364 5.97 15	180 3.75 9	1063 29.98 75	16.4 0.26 1	1.6	1.02 --	2335 2343	376

MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				Mineral constituents in parts per million										
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fluo- ride F	Baron B	Sil- ica SiO ₂	Total hardness CaCO ₃		
HODGES HYDRO SUBUNIT				Z0580	SAN DIEGUITO HYDRO UNIT								Z0500					
HODGES HYDRO SUBAREA				Z05B1														
13S/ 2W- 1R 2 S 11-19-63	66	7.1	2082	278 13.87 55	40 3.29 13	185 8.04 32	0 0.10	4 0.10	0	310 5.08 20	543 11.31 45	319 9.00 35	1.3 0.02	0.1	0.32	30	1596 1553	859
13S/ 2W-12N 1 S 11-19-63	68	7.5	1010	67 3.34 28	34 2.80 24	127 5.52 47	4 0.10 1	4 0.10	0	250 4.10 36	110 2.29 20	181 5.10 44	0	0.4	0.20	33	696 680	307
FELICITA HYDRO SUBAREA				Z05B3														
12S/ 2W-330 1 S 6-24-64	--	7.4	860	35 1.75 22	35 2.88 36	77 3.35 41	5 0.13 2	5 0.13	0	206 3.38 41	36 0.75 9	142 4.00 49	6 0.10 1	0.2	0.08	--	468 437	237

TABLE E-1
 MINERAL ANALYSES OF GROUND WATER 1963/64
 SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million percent reactance value				Mineral constituents in parts per million					
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Bicarb- onate HCO ₃	Sulfate SO ₄	Chlor- ide Cl	Ni- trate NO ₃	Ful- vate F	Bur- den B	Sil- ica SiO ₂	T.D.S. Equiv. @ 25°C Computed Total	Total hardness at 25°C	
SAN PASQUAL HYDRO SUBUNIT Z05C0																	
SAN PASQUAL HYDRO SUBAREA Z05C2																	
SAN DIEGUITO HYDRO UNIT Z0500																	
125/ 1W-31H 1 S 11-19-63	--	7.7	1310	103 5.14 33	44 3.62 23	158 6.87 44	2 0.05	0	385 6.31 41	82 1.71 11	260 7.33 48	3.4 0.05	0.2	0.14	36	862 878	438
125/ 1W-32B 1 S 11-19-63	--	7.4	770	44 2.20 27	18 1.48 18	104 4.52 55	2 0.05 1	0	196 3.21 40	38 0.79 10	132 3.72 46	21 0.34 4	0.4	0.16	39	296 495	184
125/ 1W-32E 1 S 11-19-63	--	7.9	1340	85 4.24 27	49 4.03 25	175 7.61 48	2 0.05	0	375 6.15 38	79 1.64 10	299 8.43 52	5.0 0.08	0.2	0.12	38	886 917	414
125/ 1W-34P 1 S 11-19-63	68	7.7	800	54 2.69 26	45 3.70 36	87 3.78 37	2 0.05	0	328 5.38 53	97 2.02 20	95 2.68 26	5.8 0.09 1	0.2	0.11	36	608 583	320

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million				Mineral constituents in parts per million				Total Hardness as CaCO ₃					
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl		Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	I.D.S. Exposed to CO ₂
SAN DIEGO DRAINAGE PROVINCE (Z)																	
SANTA MARIA VALLEY HYDRO SUBUNIT Z05D0																	
RAMONA HYDRO SUBAREA Z05D1																	
13S/ 1E-11M 1 S 11-20-63	--	7.7	930	47	24	143	2	0	296	37	164	8.0	0.6	0.16	43	562	216
				2.35	1.97	6.22	0.05		4.85	0.77	4.62	0.13				614	
				22	19	59			47	7	45	1					
13S/ 1E-15M 1 S 11-20-63	--	7.9	1840	105	55	288	3	0	563	167	348	8.4	0.6	0.30	35	1238	488
				5.24	4.52	12.52	0.08		9.23	3.48	9.81	0.14				1287	
				23	20	56			41	15	43	1					
13S/ 1E-17J 2 S 11-20-63	--	7.7	900	64	36	105	5	0	137	294	92	0	0.2	0.09	7	780	308
				3.19	2.96	4.57	0.13		2.25	6.12	2.59					671	
				29	27	42	1		21	56	24						
EAST SANTA TERESA HYDRO SUBAREA Z05D6																	
12S/ 2E-33P 1 S 6-16-64	75	8.1	295	24	10	22	4	0	135	14	20	3.6	0.2	0.02	--	176	101
				1.20	0.82	0.96	0.10		2.21	0.29	0.56	0.06				164	
				39	27	31	3		71	9	18	2					
13S/ 2E- 4H 1 S 6-16-64	73	7.7	390	26	18	27	2	0	156	16	27	18	0.2	0.15	--	260	139
				1.30	1.48	1.17	0.05		2.56	0.33	0.76	0.29				211	
				33	37	29	1		65	8	19	7					

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				Mineral constituents in parts per million									
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Ferric F	Boron B	Silica SiO ₂	Total Hardness as CaCO ₃	
11S/ 2E-35B 1 S 10-13-63	--	7.4	435	49	16	19	6	0	224	22	16	0	0.2	0.03	36	290	189
				2.45 52	1.32 28	0.83 17	0.15 3	3.67 80	0.46 10	0.45 10							
SUTHERLAND HYDRO SUBAREA				Z05E3													
12S/ 3E-31N 1 S 6-16-64	70	7.7	755	61	30	48	4	0	130	0	99	72	0.2	0.05	--	478	276
				3.04 39	2.47 32	2.09 27	0.10 1	2.13 27	1.67 22	2.79 36	1.16 15						
SANTA YSABEL HYDRO SUBUNIT PAMO HYDRO SUBAREA				Z05E0													
				Z05E2													
				Z0500													

TABLE E-1
 MINERAL ANALYSES OF GROUND WATER 1963/64
 SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				Mineral constituents in parts per million									
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total Dissolved Solids Computed CaCO ₃	Total Dissolved Solids CaCO ₃	
SOLEDAD HYDRO SUBUNIT																	
Z06A0																	
PENASQUITO HYDRO UNIT																	
Z0600																	
14S/ 3W-17L 2 S 12- 4-63	--	7.6	2857	302 15.07 48	60 4.93 16	260 11.30 36	0.15	6	0	351 5.75 18	600 12.49 40	468 13.20 42	2.5 0.04	0.8	0.24	34 1906	1940 1001
14S/ 3W-19Q 1 S 10-30-63	--	7.8	1230	77 3.84 27	41 3.37 23	165 7.17 50	4	0	312 5.11 36	160 3.33 23	202 5.70 40	2.7 0.04	0.6	0.26	23 860	829	361
14S/ 3W-20L 2 S 10-30-63	--	7.5	1200	84 4.19 31	37 3.04 22	145 6.30 46	2	0	255 4.18 31	182 3.79 28	191 5.39 40	0	0.6	0.21	21 788	850	362
15S/ 3W- 3N 2 S 10-30-63	--	8.5	935	55 2.74 26	43 3.54 33	99 4.30 40	4	7	136 2.23 21	281 5.85 54	90 2.54 23	0	0.2	0.14	9 655	704	314

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million reactance value				Mineral constituents in parts per million					
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fuc- ride F	Boron B	Sul- fate SO ₂	I.D.S. Evap. 180°C Evap. 105°C as Computed CaCO ₃	Vol- atiles Mordness as CaCO ₃
				PENASQUITO HYDRO UNIT												Z0660	
				POWAY HYDRO SUBUNIT												Z0680	
14S/ 1W-6P 1 S 11-19-63	--	8.5	950	37 1.85 18	40 3.29 32	119 5.17 50	3 0.08 1	9 0.30 3	190 3.11 30	127 2.84 25	155 4.37 42	0	0.2	0.22	25	598 609	257
14S/ 1W-18K 2 S 11-7-63	--	7.7	1270	54 2.69 23	29 2.38 20	153 6.65 56	2 0.05	0	192 3.15 27	67 1.39 12	230 6.49 56	36 0.58 5	0.4	0.23	40	810 706	254
14S/ 1W-21H 1 S 5-28-64	70	7.2	1263	84 4.19 32	32 2.63 20	144 6.26 48	1 0.03	0	290 4.75 37	48 1.00 8	238 6.71 53	18 0.29 2	1.3	0.11	60	745 769	341
14S/ 2W-1R 2 S 3-11-64	--	7.3	5118	335 16.72 31	37 3.04 6	765 33.26 62	21 0.54 1	0	142 2.33 4	846 17.61 33	1175 33.14 62	9.3 0.15	1.4	2.80	--	3382 3262	989
14S/ 2W-15R 1 S 11-19-63	--	7.4	1930	82 4.09 19	68 5.69 26	262 11.39 54	3 0.08	0	309 5.06 24	184 3.83 18	429 12.10 57	9.8 0.16 1	0.4	0.32	35	1286 1225	484

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million						Mineral constituents in parts per million							
				Calcium Mg	Magne- sium Mg	Sodium No	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fluo- ride F	Boron B	Sili- ca SiO ₂	Total Hardness as CaCO ₃	
SAN DIEGO HYDRO UNIT																	
LOWER SAN DIEGO SUBUNIT				Z07A0													
MISSION SAN DIEGO HYDRO SUBAREA				Z07A1													
165/ 2W-98 1 S 10-31-63	--	7.6	2350	26 1.30 7	54 4.44 23	310 13.48 70	0.05	2	0	436 7.15 26	287 5.98 22	511 14.41 52	14 0.23 1	0.26	33	1494 1452	287
165/ 2W-17H 1 S 10-31-63	--	7.9	2800	210 10.48 35	66 5.43 18	330 14.35 47	3	0.08	0	373 6.11 20	200 4.16 14	702 19.80 66	6.5 0.10	0.29	23	1976 1724	796
165/ 2W-17L 1 S 10-31-63	76	8.0	1380	46 2.30 15	27 2.27 15	240 10.44 69	4	0.10	0	336 5.51 37	120 2.50 17	247 6.97 47	0	0.8	19	854 869	226
165/ 3W-130 1 S 10-31-63	--	7.3	2440	125 6.24 22	71 5.84 21	370 16.09 57	3	0.08	0	369 6.05 22	262 5.45 20	579 16.33 59	0	0.2	21	1702 1613	604
165/ 3W-21J 1 S 10-31-63	--	7.6	3580	178 8.88 23	100 8.22 21	500 21.74 55	14	0.36	0	408 6.69 17	324 6.75 17	911 25.69 66	1.7 0.03	0.36	20	2432 2250	856
165/ 3W-27G 1 S 10-31-63	--	7.3	3750	248 12.38 27	100 8.22 18	560 24.35 54	4	0.10	0	443 7.26 18	567 11.80 30	706 19.91 50	32 0.52 1	0.4	20	2710 2456	1031
SANTEE HYDRO SUBAREA																	
145/ 1E-33L 1 S 9-27-64	69	7.2	684	30 1.50 21	16 1.32 19	96 4.17 59	2	0.05	0	224 3.67 54	10 0.21 3	103 2.90 43	0	0.6	40	360 408	141

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Date sampled	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in					parts per million equivalents per percent					parts per million					Mineral constituents in parts per million														
					Calcium Co	Magne- sium Mg	Sodium Na	potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fub- ride F	Boron B	Sul- fo- S ₂ O ₂	Tot- al Hardness Ca+Mg	Total Hardness Ca+Mg	Total Hardness Ca+Mg	Total Hardness Ca+Mg														
LOWER SAN DIEGO HYDRO SUBUNIT																				Z07A0					Z07A2					Z0700				
SANTEE HYDRO SUBAREA																				Z07A3					Z07A3					Z07A3				
155/ 1W-13N 3 S 11- 7-63		--	7.4	1350	87 4.34 30	46 3.78 26	142 6.17 43	2 0.05	0	0	206 3.38 24	158 3.29 23	248 6.99 49	35 0.56 4	0.2	0.18	27	876 847	406															
155/ 1W-17B 1 S 1-17-64		--	6.9	963	43 2.15 24	31 2.55 29	94 4.09 46	2 0.05 1	0	0	68 1.11 12	119 2.48 28	188 5.30 59	5 0.08 1	0.6	0.02	27	630 543	235															
155/ 1W-24C 9 S 11- 7-63		68	7.8	1730	176 8.78 46	34 2.80 15	167 7.26 38	4 0.10	0	0	262 4.29 23	272 5.66 30	311 8.77 47	5.1 0.08	0.2	0.18	28	1286 1126	579															
155/ 1W-30K 2 S 11- 7-63		--	7.4	920	58 2.89 31	23 1.89 20	104 4.52 48	3 0.08 1	0	0	202 3.31 36	68 1.42 15	152 4.29 47	9.7 0.16 2	0.4	0.25	25	586 543	239															
EL CAJON HYDRO SUBAREA																				Z07A3					Z07A3					Z07A3				
155/ 1E-31R 1 S 11- 6-63		--	7.1	1310	71 3.54 26	39 3.21 23	162 7.04 51	3 0.08	0	0	178 2.92 21	172 3.58 26	216 6.09 45	65 1.05 8	0.4	0.17	37	900 853	338															
155/ 1W-28Q 3 S 11- 7-63		--	7.7	2550	140 6.99 25	63 5.18 19	355 15.44 56	3 0.08	0	0	409 6.70 25	164 3.41 12	602 16.98 62	13 0.21 1	0.2	0.55	35	1630 1577	609															
165/ 1W- 1G 1 S 11- 6-63		--	7.3	1850	174 8.68 39	63 5.18 24	187 8.13 37	2 0.05	0	0	282 4.62 21	416 8.66 40	231 6.51 30	125 2.02 9	0.2	0.12	43	1478 1380	694															

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent reactance value				Mineral constituents in parts per million						
				Calcium Co	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fuo- ride F	Boreh B	Sil- ica SiO ₂	I.D.S. Exp 180°C Evap 105°C Computed	Total Hardness as CaCO ₃	
LOWER SAN DIEGO HYDRO SUBUNIT Z07A0				EL CAJON HYDRO SUBAREA Z07A3				Z0700										
16S/ 1W-2K 6 S 11- 6-63	--	7.4	1950	112 5.59 27	62 5.10 25	225 9.78 48	0.03	1	0	250 4.10 20	158 3.29 16	399 11.25 55	106 1.71 8	0.2	0.18	43	1396 1229	535
16S/ 1W-11P 4 S 11- 6-63	--	7.3	3000	212 10.58 32	75 6.17 19	365 15.87 49	0.05	2	0	261 4.28 13	151 3.14 10	819 23.10 71	111 1.79 6	0.4	0.20	42	2242 1906	838
16S/ 1W-12J 3 S 11- 6-63	--	7.4	3050	253 12.62 37	153 12.58 37	207 9.00 26	0.13	5	0	195 3.20 9	192 4.00 12	840 23.69 70	190 3.06 9	0.2	0.23	40	2268 1976	1261
16S/ 1W-15K 8 S 11- 6-63	--	7.6	2600	148 7.39 23	75 6.17 20	415 18.04 57	0.03	1	0	573 9.39 30	394 8.20 26	496 13.99 44	10 0.16 1	0.4	0.45	53	1816 1875	679
EL MONTE HYDRO SUBAREA Z07A5																		
15S/ 1E-10H 1 S 11- 7-63	66	7.7	760	62 3.09 39	26 2.14 27	60 2.61 33	0.08	3	0	255 4.18 52	60 1.25 15	94 2.65 33	0	0.2	0.08	25	482 456	262

TABLE E-1
 MINERAL ANALYSES OF GROUND WATER 1963/64
 SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp. when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million										Mineral constituents in parts per million					
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	T.D.S. Evap. Residue as Reported	Total hardness as CaCO ₃		
EL CAPITAN HYDRO SUBUNIT				Z07C0	SAN DIEGO HYDRO UNIT										Z0700				
ALPINE HYDRO SUBAREA				Z07C3															
15S/ 2E-27L 1 S 3-18-64	70	7.0	1366	118 5.89 40	53 4.36 29	100 4.35 29	7 0.18 1	0	425 6.97 46	81 1.69 11	221 6.23 41	13.6 0.22 1	0.3	0.16	59	920 862	513		

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million				Mineral constituents in parts per million										
				Calcium Co	Magne- sium Mg	Sod-ium No	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fluo- ride F	Boron B	Sili- co SiO ₂	Total I.O.S. Exp-180°C Exp-105°C as Computed CaCO ₃		
CUYAMACA HYDRO SUBUNIT				Z0700														
INAJA HYDRO SUBAREA				Z07D1				Z07D2				Z07D3						
13S/ 3E-13J 1 S 5-26-64	60	7.2	810	62 3.09 32 58	68 5.59 58	21 0.91 9	1 0.03	0	4.72 51	144 3.00 32	53 1.49 16	7.2 0.12 1	0	0.3	0	50	570 548	434
13S/ 4E-21K 1 S 5-26-64	58	6.8	417	29 1.45 33	20 1.64 37	28 1.22 27	5 0.13 3	0	159 2.61 61	38 0.79 19	31 0.87 20	0.0	0	0.3	0	35	220 264	155
SPENCER HYDRO SUBAREA				Z07D2				Z07D2				Z07D3						
12S/ 3E-35C 1 S 5-26-64	68	7.5	360	30 1.50 40	12 0.99 26	28 1.22 32	3 0.08 2	0	117 1.92 53	41 0.85 24	27 0.76 21	4.5 0.07 2	0	0.3	0	27	205 230	125
12S/ 3E-35P 1 S 5-26-64	62	7.5	525	42 2.10 40	21 1.73 33	31 1.35 26	4 0.10 2	0	144 2.36 45	31 0.65 12	46 1.30 25	56 0.90 17	0	0.3	0	25	290 327	192
12S/ 3E-35P 2 S 5-26-64	65	6.4	366	17 0.85 24	16 1.32 37	31 1.35 38	2 0.05 1	0	85 1.39 39	25 0.52 15	57 1.61 46	0.5 0.01	0	0.5	0	45	240 236	109
CUYAMACA HYDRO SUBAREA				Z07D3				Z07D3				Z07D3						
14S/ 4E- 4M 1 S 5-26-64	68	7.8	267	22 1.10 42	10 0.82 32	15 0.65 25	1 0.03 1	0	83 1.36 53	22 0.46 18	17 0.48 19	18 0.29 11	0	0.2	0.01	60	195 206	96

TABLE E-1
 MINERAL ANALYSES OF GROUND WATER 1963/64
 SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Date sampled	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million					parts per million equivalents per million reactivity value					Mineral constituents in parts per million				
					Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Iron Fe	Copper Cu	Zinc Zn
LOWER SWEETWATER HYDRO SUBUNIT Z09A0																			
SWEETWATER HYDRO SUBAREA Z09A2																			
SWEETWATER HYDRO UNIT Z0900																			
175/ 24-338 1 S 11- 5-63		--	8.0	2810	110 5.49 18	49 4.03 13	485 21.09 68	15 0.38 1	0	329 5.39 18	139 2.89 9	791 22.31 73	0	0.2	0.40	22	1820 1773	476	
175/ 24-36D 1 S 11- 5-63		--	7.9	3450	279 13.92 34	83 6.83 16	475 20.65 50	2 0.05	0	477 7.82 19	327 6.81 17	940 26.51 64	0	0.2	0.30	17	2660 2358	1038	

TABLE E-1
 MINERAL ANALYSES OF GROUND WATER 1963/64
 SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Date sampled	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million										Mineral constituents in parts per million			
					Calcium Mg	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fuoride F	Boron B	Silica SiO ₂	Total Dissolved Solids Evap 100°C as CaCO ₃	Total Hardness as CaCO ₃
MIDDLE SWEETWATER HYDRO SUBUNIT JAMACHA HYDRO SUBAREA					SWEETWATER HYDRO UNIT										Z0900			
Z09B0					Z09B1													
16S/ 2E-28H 1 S 4-30-64	--	7.7	660	56 2.79 40	15 1.23 18	65 2.83 41	3 0.08 1	0	217 3.56 51	51 1.06 15	84 2.37 34	0.9 0.01	0.4	0.16	47	408 429	201	
16S/ 2E-32D 1 S 4-30-64	--	6.9	633	33 1.65 26	14 1.15 18	78 3.39 54	2 0.05 1	0	176 2.88 45	28 0.58 9	104 2.93 46	1.2 0.02	0.4	0.05	46	379 393	140	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million equivalents per million reactance value										Mineral constituents in parts per million					
				Calcium	Magnesium	Sodium	Potassium	Bicarbonate	Sulfate	Chloride	Nitrate	Fluoride	Boron	Silica	Iron	Copper	Zinc		
Date sampled				Ca	Mg	Na	K	CO ₃	HCO ₃	SO ₄	Cl	NO ₃	F	B	SiO ₂	Fe	Cu	Zn	
SWEETWATER HYDRO UNIT																			
UPPER SWEETWATER HYDRO SUBUNIT										Z09C0									
LOVELAND HYDRO SUBAREA										Z09C1									
15S/ 3E-29E 1 S	62	6.8	351	26	14	25	2	0	122	13	36	12.4	0.2	0	63	264	123		
4-28-64				1.30	1.15	1.09	0.05	0	2.00	0.27	1.02	0.20							
				36	32	30	1		57	8	29	6							
DESCANSO HYDRO SUBAREA										Z09C4									
15S/ 4E- 9F 1 S	60	7.4	570	70	11	30	2	0	256	28	40	1.8		0	31	359	220		
4-29-64				3.49	0.90	1.30	0.05		4.20	0.58	1.13	0.03							
				61	16	23	1		71	10	19	1				340			
15S/ 4E- 9GS1 S	58	7.4	396	44	9	27	3	0	194	16	26	0.4		0.01	43	250	147		
4-29-64				2.20	0.74	1.17	0.08		3.18	0.33	0.73	0.01							
				53	18	28	2		75	8	17					264			
15S/ 4E-19D 1 S	54	7.1	520	45	16	42	3	0	167	79	40	1.1		0.04	37	330	179		
4-28-64				2.25	1.32	1.83	0.08		2.74	1.64	1.13	0.02							
				41	24	33	1		50	30	20					346			
GARNET HYDRO SUBAREA										Z09C5									
14S/ 4E-27G 1 S	60	7.8	323	33	6	26	2	0	132	25	21	1.0		0.04	34	210	107		
5-26-64				1.65	0.49	1.13	0.05		2.16	0.52	0.59	0.02							
				50	15	34	2		66	16	18	1				214			

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million						parts per million equivalents per percent					Mineral constituents in parts per million												
				Calcium Co	Magnesium Mg	Sodium No	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total Hardness as CaCO ₃											
OTAY HYDRO SUBUNIT Z10B0														Z1000													
OTAY HYDRO SUBUNIT Z10B0														OTAY HYDRO UNIT Z1000													
18S/ 2W-21J 1 S 5-13-64	--	7.8	2650	182 9.08 33	64 5.26 19	295 12.83 47	3 0.08	0	122 2.00	94 1.96 7	837 23.60 86	0	0	0.1	0.27	16	1664	718									
18S/ 2W-21L 1 S 10- 8-63	--	7.4	2100	138 6.89 30	66 5.43 23	248 10.78 46	5 0.13 1	0	152 2.49 11	106 2.21 10	654 18.44 80	0	0	0.2	0.22	15	1532	616									
6-23-64	--	7.9	2551	164 8.18 34	63 5.18 22	243 10.57 44	5 0.13 1	0	154 2.52 11	111 2.31 10	672 18.95 80	1.0 0.02	10	0.5	0.20	--	1660	669									
18S/ 2W-22H 1 S 11- 1-63	71	7.0	1580	96 4.79 28	49 4.03 24	183 7.96 47	2 0.05	0	172 2.82 17	65 1.35 8	431 12.15 74	10 0.16 1	34	0.1	0.17	34	1057	441									
18S/ 2W-22L 2 S 5-13-64	--	7.3	2100	137 6.84 31	66 5.43 25	225 9.78 44	3 0.08	0	216 3.54 16	101 2.10 10	564 15.90 73	14 0.23 1	31	0.2	0.21	31	1464	614									
6-23-64	71	8.2	2558	164 8.18 33	77 6.33 25	233 10.13 41	8 0.20 1	0	232 3.80 15	116 2.42 10	635 17.91 73	29 0.47 2	--	0.4	0.11	--	1990	726									
18S/ 2W-22N 2 S 5-13-64	--	6.9	910	25 1.25 14	33 2.71 30	97 4.22 46	38 0.97 11	0	123 2.02 22	31 0.65 7	194 5.47 60	62 1.00 11	31	2.0	0.21	31	578	198									
6-23-64	--	7.0	790	48 2.40 30	13 1.07 13	96 4.17 52	13 0.33 4	0	85 1.39 17	30 0.62 8	179 5.05 63	63 1.02 13	--	0.2	0.14	--	520	174									

TABLE E-1
 MINERAL ANALYSES OF GROUND WATER 1963/64
 SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million reactance value				Mineral constituents in parts per million					
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Flu- ride F	Boron B	Sil- ica SiO ₂	I.D. Ex- posed to C Com- puted Calc.	Temp hardness as CaCO ₃
OTAY HYDRO SUBUNIT																	
Z10R0																	
OTAY HYDRO UNIT																	
Z1000																	
18S/ 2M-24F 1 S 11- 1-63	74	7.4	1600	80 3.99 23	40 3.29 19	228 9.91 57	3 0.08	0	247 4.05 24	93 1.94 11	390 11.00 65	0	0.7	0.30	31	1116 987	364

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per percent reactance value				Mineral constituents in parts per million					
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	I.D.S. Evap 100°C Evap 100°C Compared Col.C.C.	Total hardness as CaCl ₂
OTAY HYDRO UNIT																	
DULZURA HYDRO SUBUNIT				Z10C0				Z1000									
JAMUL HYDRO SUBAREA				Z10C3													
17S/ 1E-4H 1 S 11-6-63	--	7.5	2070	114 5.69 24	98 8.06 34	223 9.70 41	2 0.05	0	456 7.47 32	83 1.73 7	489 13.79 59	12 0.19 1	0.1	0.23	32	1586 1278	688
17S/ 1E-10G 1 S 11-6-63	--	7.7	1080	43 2.15 19	43 3.54 31	130 5.65 49	3 0.08 1	0	212 3.47 31	73 1.52 13	216 6.09 54	11 0.18 2	0.4	0.19	41	762 665	285
17S/ 2F-29J 1 S 4-28-64	61	7.4	963	68 3.39 35	22 1.81 19	103 4.48 46	3 0.08 1	0	233 3.82 39	51 1.06 11	177 4.99 51	0.6 0.01	1.2	0.16	44	577 584	260

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million						parts per million equivalents per percent reactance value					Mineral constituents in parts per million																
				Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Barium B	Silica SiO ₂	Total Dissolved Solids as CaCO ₃															
TIA JUANA HYDRO SUBUNIT														Z11A0										Z11A1				Z1100			
TIA JUANA HYDRO SUBAREA														Z11A0										Z11A1				Z1100			
18S/ 2W-28L 1 S 3- 4-64	80	7.5	4371	226 11.28 25	121 9.95 22	547 23.78 53	6 0.15	0	341 5.59 12	213 4.43 10	1230 34.69 77	25 0.40 1	0.6	0.42	33	3002 1062															
18S/ 2W-32H 1 S 10- 7-63	70	7.2	11200	675 33.68 25	247 20.31 15	1900 82.61 60	10 0.26	0	541 8.87 7	817 17.01 13	3869 109.11 81	0	0.2	1.17	20	9584 2702															
1- 5-64	68	7.5	10549	452 22.55 19	301 24.75 21	1596 69.39 59	12 0.31	0	547 8.97 8	737 15.34 13	3250 91.65 79	3.7 0.06	1.0	0.90	27	7313 2367															
18S/ 2W-32P 4 S 10- 3-63	69	6.9	28300	798 39.82 11	936 76.98 22	5240 227.84 66	121 3.09 1	0	307 5.03 1	1382 28.77 8	10940 308.51 90	13 0.21	1.0	1.26	--	21160 5845															
3- 3-64	68	7.0	29412	774 38.62 11	1025 84.30 24	5340 232.18 65	134 3.43 1	0	330 5.41 2	1499 31.21 9	11375 320.78 90	5.6 0.09	1.1	1.16	24	22842 6151															
18S/ 2W-32O 1 S 10- 3-63	70	7.8	16270	882 44.01 24	466 38.32 21	2346 102.00 55	20 0.51	0	126 2.07 1	742 15.45 8	5880 165.82 90	11 0.18	0.7	0.61	--	11220 4120															
3- 3-64	68	6.6	16670	880 43.91 23	531 43.67 23	2376 103.31 54	17 0.43	0	219 3.59 2	791 16.47 9	6025 169.91 89	6.2 0.10	0.9	0.54	21	13380 4383															
18S/ 2W-33K 4 S 11- 4-63	66	7.3	3750	319 15.92 35	107 8.80 19	485 21.09 46	4 0.10	0	416 6.82 15	618 12.87 29	901 25.41 56	0	0.4	0.56	20	3002 1237															

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million				Mineral constituents in parts per million									
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total hardness as CaCO ₃	
TIA JUANA HYDRO SUBUNIT																	
TIA JUANA HYDRO SUBAREA																	
Z11A0																	
Z11A1																	
Z1100																	
18S/ 2W-33K 4 S 6-23-64	69	7.7	4227	297 14.82 32	127 10.44 23	466 20.26 44	12 0.31 1	0	407 6.67 15	612 12.74 28	940 26.51 58	1.0 0.02	0.9	0.47	--	3092 2656	1264
18S/ 2W-33L 5 S 3- 4-64	70	7.6	4805	296 14.77 29	133 10.94 22	561 24.39 48	8 0.20	0	510 8.36 17	391 8.14 16	1195 33.70 67	8.7 0.14	0.8	1.00	--	3217 2845	1287
18S/ 2W-33L 9 S 3- 4-64	--	7.2	4760	274 13.67 26	129 10.61 21	616 26.78 52	25 0.64 1	0	574 9.41 18	453 9.43 18	1165 32.85 63	11 0.18	0.9	0.60	16	3279 2973	1215
18S/ 2W-33L10 S 10- 8-63	70	8.5	1780	26 1.30 6	47 3.87 18	370 16.09 75	12 0.31 1	12 0.40 2	327 5.36 25	237 4.93 23	372 10.49 50	0.9 0.01	0.2	0.46	46	1270 1284	259
11- 1-63	94	7.7	1890	46 2.30 11	32 2.63 13	360 15.65 75	9 0.23 1	0	350 5.74 28	740 5.00 24	344 9.70 47	0	0.2	0.53	47	1756 1251	247
3- 4-64	96	7.8	2025	42 2.10 10	50 4.11 19	342 14.87 70	10 0.26 1	0	373 6.11 29	232 4.83 23	349 9.84 47	4.8 0.08	0.6	0.38	62	1224 1276	311
18S/ 2W-34F 1 S 6-22-64	68	7.3	6800	373 18.61 24	153 12.58 16	1070 46.52 60	10 0.26	0	616 10.10 13	850 17.70 23	1798 50.70 65	0	0.4	1.00	--	4662 4558	1561
18S/ 2W-34L 2 S 6-22-64	70	7.7	5400	329 16.42 26	117 9.62 15	860 37.39 59	8 0.20	0	594 9.74 15	939 19.55 31	1149 32.40 52	74 1.19 2	0.2	0.83	--	3820 3769	1303

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million			Mineral constituents in parts per million						
				Calcium Co	Magne- sium Mg	Sodium No	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fer- rous Fe	Bar- ium Ba	Sul- fate SO ₄	Total Hardness as CaCO ₃	
TIA JUANA HYDRO SUBUNIT																	
TIA JUANA HYDRO SUBAREA																	
Z11A0																	
Z11A1																	
Z1100																	
185/ 2W-34P 1 S 6-22-64	69	7.4	3900	323 16.12 36	90 7.40 17	475 20.65 47	0.15	6	0	348 5.70 13	735 15.30 35	798 22.50 52	8 0.13	0.6	0.43	2750 2607	1177
185/ 2W-35L 1 S 10-31-63	--	7.6	4500	303 15.12 29	105 8.64 17	630 27.39 53	0.23	9	0	546 8.95 18	315 6.56 13	1259 35.50 70	0	0.1	0.69	3122 2911	1189
195/ 2W-1M13 S 10-31-63	68	7.7	3050	218 10.88 31	73 6.00 17	420 18.26 52	0.18	7	0	406 6.65 19	240 5.00 14	837 23.60 67	3.0 0.05	0.4	0.55	2156 2016	845
195/ 2W-1N 6 S 10-31-63	--	8.2	1550	45 2.25 14	32 2.63 17	245 10.65 68	0.23	9	0	302 4.95 32	128 2.66 17	279 7.87 51	0	0.2	0.36	880 937	244
195/ 2W-4H 7 S 6-23-64	72	7.6	2090	49 2.45 12	46 3.78 18	335 14.57 69	0.33	13	0	382 6.26 30	256 5.33 26	330 9.31 45	0	0.6	0.45	1275 1218	312
195/ 2W-4L 1 S 11-1-63	68	7.4	3400	295 14.72 34	100 8.22 19	465 20.22 47	0.10	4	0	433 7.10 17	662 13.78 32	752 21.21 50	43 0.69 2	0.2	0.63	2870 2554	1148
195/ 2W-5A 3 S 3-5-64	68	7.2	4458	82 4.09 11	96 7.90 21	587 25.52 67	0.49	19	0	95 1.56 4	23 0.48 1	1375 38.78 93	53 0.85 2	0.3	0.14	2504 2282	600
195/ 2W-5B 6 S 10-3-63	68	7.5	9083	554 27.64 28	256 21.05 22	1113 48.39 50	0.33	13	0	198 3.25 3	429 8.93 9	3060 86.29 88	8.7 0.14	0.6	0.42	6370 5332	2436

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million reagent value				Mineral constituents in parts per million					
				Calcium M g	Magnesium M g	Sodium No	Potassium K	Bicarbonate HCO ₃	Carbonate CO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	I.D.S. Evap. 180°C as hardness Computed CaCO ₃	Total hardness as CaCO ₃
195/ 2W- 5B 6 S 3- 3-64	67	7.6	9524	570	282	1173	10	0	255	454	3140	6.2	0.9	0.34	25	6870	2584
				28.44	23.19	51.00	0.26	4.18	9.45	88.55	0.10	4	9	87	0.10	0.9	0.34
195/ 2W- 5C 6 S 10- 4-63	69	7.8	73300	638	675	4280	41	0	264	1146	8780	12	0.9	1.20	--	16590	4371
				31.84	55.51	186.09	1.05	4.33	23.86	247.60	0.19	2	9	90	0.19	0.9	1.20
3- 4-64	68	7.3	23419	670	733	4325	40	0	354	1267	8900	6.2	0.9	1.15	22	17580	4689
				33.43	60.28	188.05	1.02	5.80	26.38	250.98	0.10	2	9	89	0.10	0.9	1.15
195/ 2W- 5G18 S 10- 7-63	70	6.9	7850	455	186	1140	6	0	250	531	2528	0	0.1	0.37	17	6060	1902
				22.70	15.30	49.57	0.15	4.01	11.06	71.29	0	5	13	82	0	0.1	0.37
3- 4-64	68	7.3	8651	432	242	1175	8	0	156	515	2790	5.6	0.9	0.54	16	6009	2075
				21.56	19.90	51.09	0.20	2.56	10.72	78.68	0.09	3	12	85	0.09	0.9	0.54
195/ 2W- 5L 2 S 10- 4-63	69	7.9	8960	403	241	1260	19	0	121	499	3000	12	0.6	0.65	--	5690	1998
				20.11	19.82	54.78	0.49	1.98	10.39	84.60	0.19	2	11	87	0.19	0.6	0.65
3- 4-64	70	7.3	9833	464	271	1346	18	0	325	541	3075	6.2	0.9	0.60	21	7493	2274
				23.15	22.29	58.52	0.46	5.33	11.26	86.72	0.10	5	11	84	0.10	0.9	0.60
195/ 2W- 5O 2 S 11- 1-63	69	7.3	2900	236	66	340	5	0	296	346	691	0	0.4	0.41	29	1920	861
				11.78	5.43	14.78	0.13	4.85	7.20	19.49	0	15	23	62	0	0.4	0.41

Z1100

TIA JUANA HYDRO UNIT

Z11A0

TIA JUANA HYDRO SUBUNIT

TIA JUANA HYDRO SUBAREA

Z11A1

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in parts per million										Mineral constituents in parts per million				
				Calcium Co	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total Dissolved Solids (TDS) Computed	Total Dissolved Solids (TDS) Collected	
POTRERO HYDRO SUBUNIT														Z1100				
REE CANYON HYDRO SURAREA														Z11B2				
18S/ 2E-14C 1 S 6-24-64	--	7.2	555	24 1.20 21	20 1.64 28	66 2.87 50	2 0.05 1	0	212 3.47 61	75 0.52 9	61 1.72 30	1.0 0.02	0.6	0.08	57	360 361	142	
BARRETT HYDRO SUBAREA														Z11B3				
18S/ 3E- 7N 1 S 6-25-64	--	7.4	917	72 3.59 39	26 2.14 23	79 3.43 37	3 0.08 1	0	217 3.56 39	49 1.02 11	160 4.51 49	2.5 0.04	1.0	0.07	26	570 525	287	

TABLE E-1
 MINERAL ANALYSES OF GROUND WATER 1963/64
 SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in				parts per million equivalents per percent				parts per million reactance value				Mineral constituents in parts per million			
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	I.D.S. Exad. 18°C	Total hardness as CaCO ₃		
MONUMENT HYDRO SUBUNIT				Z11D0	TIA JUANA HYDRO UNIT				Z1100										
MONUMENT HYDRO SUBAREA				Z11D2															
15S/ 5E- 30S1 S 4-29-64	48	7.6	372	42 2.10 54	11 0.90 23	18 0.78 20	3 0.08 2	0	2.72 69	166	30 0.62 16	21 0.59 15	1.5 0.02 1	0.2	0	38	254 246	150	

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in				parts per million equivalents per million reactance value				Mineral constituents in parts per million					
				Calcium Ca	Magnesium Mg	Sodium Na	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fluoride F	Boron B	Silica SiO ₂	Total Dissolved Solids TDS	Total Hardness Total Hardness CaCO ₃ Equivalents CaCO ₃ Equivalents CaCO ₃ Equivalents CaCO ₃ Equivalents
COTTONWOOD HYDRO SUBUNIT Z11F0																	
TIA JUANA HYDRO UNIT Z1100																	
16S/ 5F- 6M 1 S 4-29-64	--	6.6	271	16 0.80 31	10 0.82 31	22 0.96 37	1 0.03 1	0	79 1.29 49	17 0.35 13	33 0.93 35	4.8 0.08 3	0.2	0	39	205 182	81
16S/ 5E- 6M 2 S 4-29-64	--	7.6	247	16 0.80 32	10 0.82 33	20 0.87 35	1 0.03 1	0	100 1.64 66	1 0.02 1	29 0.82 33	1.2 0.02 1	0.2	0.02	2	135 130	81
17S/ 5E- 4C 2 S 6-26-64	--	7.1	866	87 4.34 44	36 2.96 30	56 2.43 25	3 0.08 1	0	117 1.92 20	329 6.85 70	35 0.99 10	0.5 0.01	0.6	0.10	40	660 645	365

TABLE E-1
MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro mhos at 25°C)	Mineral constituents in parts per million				parts per million equivalents per million percent reactance value				Mineral constituents in parts per million							
				Calcium Ca	Magne- sium Mg	Sodium Na	Potas- sium K	Carbon- ate CO ₃	Bicar- bonate HCO ₃	Sulfate SO ₄	Chlo- ride Cl	Ni- trate NO ₃	Fuo- ride F	Boron B	Silic- co SiO ₂	Total Equiv. 180°C Equiv. 105°C as CaCO ₃			
TIA JUANA HYDRO UNIT																			
CAMPO HYDRO SUBUNIT																			
CAMPO HYDRO SUBAREA																			
Z11H0																			
Z11H2																			
175/ 5E-368 1 S 4-28-64	62	7.5	337	26 1.30 37	7 0.58 16	37 1.61 45	2 0.05	0	0	160 2.62 73	4 0.08	30 0.85 24	2 2	2.8 0.05 1	0.5	0.03	33	228 221	94
185/ 4E-246 1 S 6-25-64	--	7.5	430	20 1.00 23	15 1.23 28	47 2.04 47	3 0.08 2	0	0	171 2.80 64	19 0.40 9	39 1.10 25	0.4 0.4	3.5 0.06 1	0.4	0.04	47	270 278	112
185/ 5E- 18 1 S 6-24-64	--	7.2	398	23 1.15 29	11 0.90 23	42 1.83 47	2 0.05 1	0	0	156 2.56 64	7 0.15 4	44 1.24 31	0.4 0.4	2.0 0.03 1	0.4	0.08	45	255 253	103
CLOVER FLAT HYDRO SUBAREA																			
Z11H3																			
175/ 6E- 9R 1 S 6-26-64	--	7.4	231	16 0.80 37	4 0.33 15	23 1.00 46	2 0.05 2	0	0	90 1.48 64	5 0.10 4	15 0.42 18	0.4 0.4	20 0.32 14	0.4	0.02	4.7	160 177	57
175/ 5E-24F 1 S 6-26-64	--	8.0	348	24 1.20 33	10 0.82 22	37 1.61 44	2 0.05 1	0	0	176 2.88 79	5 0.10 3	23 0.65 18	0.6 0.6	2.0 0.03 1	0.6	0.05	37	230 227	101
HILL HYDRO SUBAREA																			
Z11H4																			
175/ 6E-25E 1 S 4-28-64	61	6.9	729	49 2.45 33	19 1.56 21	76 3.30 45	3 0.08 1	0	0	207 3.39 46	20 0.42 6	123 3.47 47	0.6 0.6	7.2 0.12 2	0.6	0	59	484 459	201

TABLE E-1

MINERAL ANALYSES OF GROUND WATER 1963/64
SAN DIEGO DRAINAGE PROVINCE (Z)

State well number	Temp when sampled in °F	pH	Specific conductance (micro-mhos at 25°C)	Mineral constituents in				parts per million equivalents per million				Mineral constituents in						
				Calcium Mg	Sodium No	Potassium K	Carbonate CO ₃	Bicarbonate HCO ₃	Sulfate SO ₄	Chloride Cl	Nitrate NO ₃	Fuoride F	Barium U	Soluble SO ₂	Iron	Copper		
185/ 6E-12P 1 S 6-26-64	--	8.2	642	50	12	72	3	0	234	16	83	4.5	0.7	0.08	52	4.10	175	
				2.50 37	0.99 15	3.13 47	0.08 1	3.84 58	0.33 5	2.34 36	0.07 1							
CAMPO HYDRO SUBUNIT HIPASS HYDRO SUBAREA				Z11H0	Z11H5	TIA JUANA HYDRO UNIT												Z1100

TABLE E-2
 RADIOASSAYS OF GROUND WATER
 LOS ANGELES DRAINAGE PROVINCE (U)

State Well Number	Date Sampled	Picocuries per liter ^a			
		Gross Alpha Gross Beta	Solid Alpha Solid Beta	Dissolved Alpha Dissolved Beta	
<u>Upper Ventura River Hydrologic Subunit U-02.B0</u>					
4N/23W- 9B1	7-15-64		$\frac{0.15 + 0.63}{-8.48 + 8.64}$	$\frac{-1.43 + 7.90}{-0.38 + 10.88}$	
<u>Ojai Hydrologic Subarea U-02.C2</u>					
4N/22W- 6Q1	9-10-64	$\frac{3.94 + 4.21}{2.86 + 13.04}$			
<u>Oxnard Hydrologic Subarea U-03.A1</u>					
1S/21W-30A1	7-17-64		$\frac{0.26 + 0.63}{-5.68 + 8.00}$	$\frac{-0.33 + 2.54}{-6.38 + 11.73}$	
1N/21W-31A1	7-17-64		$\frac{0.18 + 0.63}{3.21 + 8.36}$	$\frac{-1.55 + 10.73}{6.64 + 12.44}$	
<u>Pleasant Valley Hydrologic Subarea U-03.A2</u>					
1N/20W- 6J1	7- 8-64		$\frac{-0.18 + 1.65}{6.67 + 8.43}$	$\frac{20.00 + 18.40}{-17.29 + 13.22}$	
<u>Central Hydrologic Subarea U-05.A5</u>					
2S/11W- 8A5	7- 1-64		$\frac{-0.48 + 0.23}{-0.70 + 9.01}$	$\frac{2.98 + 3.13}{-0.45 + 11.13}$	

TABLE E-2

RADIOASSAYS OF GROUND WATER

LOS ANGELES DRAINAGE PROVINCE (U)
(continued)

State Well Number	Date Sampled	Picrocuries per liter ^a			
		Gross Alpha Gross Beta	Solid Alpha Solid Beta	Dissolved Alpha Dissolved Beta	

Main San Gabriel Hydrologic Subarea U-05.D1

1S/9W-1F2	6-23-64	-0.90 <u>+</u> 1.25			
		0.43 <u>+</u> 13.57			
1S/10W-7A6	6-25-64	2.58 <u>+</u> 4.26			
		9.73 <u>+</u> 14.11			
1S/10W-19N1	6-25-64	-1.88 <u>+</u> 1.90			
		2.27 <u>+</u> 13.29			
1S/11W-10F1	6-26-64	0.24 <u>+</u> 1.60			
		-2.86 <u>+</u> 10.77			
1S/11W-14M1	6-15-64	0.00 <u>+</u> 2.05			
		7.16 <u>+</u> 11.64			
1S/11W-26K1	6-26-64	1.17 <u>+</u> 2.28			
		-5.13 <u>+</u> 12.09			
1S/11W-33P1	6-26-64	-1.08 <u>+</u> 2.75			
		-1.67 <u>+</u> 13.60			

Upper Canyon Hydrologic Subarea U-05.D3

1N/10W-22M1	6-24-64	-0.35 <u>+</u> 1.56			
		-3.40 <u>+</u> 12.15			

Pomona Hydrologic Subarea U-05.E2

1S/8W-7N1	6-23-64	0.88 <u>+</u> 2.41			
		37.84 <u>+</u> 12.10			

TABLE E-2

RADIOASSAYS OF GROUND WATER

LOS ANGELES DRAINAGE PROVINCE (U)
(continued)

State Well Number	Date Sampled	Picocuries per liter ^a		
		Gross Alpha Gross Beta	Solid Alpha Solid Beta	Dissolved Alpha Dissolved Beta

Live Oak Hydrologic Subarea U-05.E3

1S/8W-5A1	6-23-64	0.20 + 3.60		
		-17.50 + 14.01		

Anaheim Hydrologic Subarea U-05.F1

5S/12W-12C1	6-19-64	0.59 + 1.82		
		-11.18 + 11.64		

TABLE E-2
 RADIOASSAYS OF GROUND WATER
 COLORADO RIVER BASIN DRAINAGE PROVINCE (X)

State Well Number	Date Sampled	Picouries per liter ^a		
		<u>Gross Alpha</u> <u>Gross Beta</u>	<u>Solid Alpha</u> <u>Solid Beta</u>	<u>Dissolved Alpha</u> <u>Dissolved Beta</u>
<u>Bristol Hydrologic Subunit X-10.A0</u>				
6N/11E-30F1	6-25-64	- 10.61 + -152.21 +	6.27 131.14	
6N/12E-35F1	6-25-64	- 4.90 + 18.56 +	6.25 78.66	
6N/13E-36Q1	6-25-64	- 3.12 + 4.60 +	2.06 13.65	
6N/14E-31A1	6-25-64	1.86 + 5.58 +	3.67 13.29	
6N/14E-32E1	6-25-64	- 0.36 + - 1.06 +	2.00 12.77	
6N/14E-32M1	6-25-64	- 0.70 + 1.40 +	2.63 14.40	
6N/14E-32M2	6-25-64	0.41 + 0.34 +	2.55 12.55	
6N/14E-32N1	6-25-64	- 1.32 + 13.49 +	1.66 14.05	
7N/11E-36D1	6-25-64	0.55 + 3.38 +	3.00 12.10	
8N/12E-20B1	6-25-64	21.70 + 18.71 +	8.07 14.49	
8N/12E-26L1	6-25-64	9.16 + 6.17 +	5.51 14.11	

TABLE E-2
 RADIOASSAYS OF GROUND WATER
 SANTA ANA DRAINAGE PROVINCE (Y)

State Well Number	Date Sampled	Picouries per liter ^a		
		$\frac{\text{Gross Alpha}}{\text{Gross Beta}}$	$\frac{\text{Solid Alpha}}{\text{Solid Beta}}$	$\frac{\text{Dissolved Alpha}}{\text{Dissolved Beta}}$
<u>East Coastal Plain Hydrologic Subarea Y-01.A1</u>				
5S/11W-21M3	6-19-64	1.07 ± 2.11		
		0.99 ± 10.72		
5S/11W-21N2	6-19-64	1.07 ± 2.87		
		$- 5.46 \pm 12.45$		
5S/11W-29C1	6-22-64	$- 0.30 \pm 1.13$		
		-15.25 ± 11.72		
5S/11W-33H1	6-19-64	0.99 ± 1.95		
		6.02 ± 12.02		
5S/11W-34F3	6-19-64	$- 1.27 \pm 2.64$		
		5.68 ± 13.68		
5S/11W-36B2	6-17-64	1.15 ± 2.24		
		1.68 ± 12.88		
5S/11W-36P1	6-17-64	3.77 ± 4.63		
		2.97 ± 13.80		
6S/10W-6B2	6-14-64	0.66 ± 2.02		
		$- 2.39 \pm 12.17$		
6S/10W-6H1	6-17-64	$- 2.05 \pm 2.87$		
		$- 5.67 \pm 12.32$		
6S/11W-1N2	6-17-64	$- 0.19 \pm 2.07$		
		1.50 ± 2.41		
6S/11W-3R2	6-23-64	$- 5.13 \pm 4.11$		
		5.50 ± 14.97		

TABLE E-2
RADIOASSAYS OF GROUND WATER

SANTA ANA DRAINAGE PROVINCE (Y)
(continued)

State Well Number	Date Sampled	Picouries per liter ^a		
		Gross Alpha Gross Beta	Solid Alpha Solid Beta	Dissolved Alpha Dissolved Beta

Chino Hydrologic Subarea Y-01.B1

1S/6W-29R1	6-17-64	0.58 \pm 1.62	- 5.60 \pm 11.66
1S/8W-10N1	6-22-64	0.50 \pm 0.79	0.27 \pm 11.47
2S/7W-10M1	6-17-64	6.00 \pm 6.51	-11.41 \pm 14.16
2S/7W-22K1	6-17-64	1.90 \pm 3.05	- 3.95 \pm 12.49
2S/7W-23E1	6-17-64	6.64 \pm 3.61	-14.10 \pm 12.82
2S/7W-27A1	6-17-64	2.61 \pm 5.18	0.43 \pm 13.26

Claremont Heights Hydrologic Subarea Y-01.B3

1N/8W-34N1	6-22-64	- 1.14 \pm 0.62	0.14 \pm 11.18
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Temescal Hydrologic Subarea Y-01.B5

3S/7W-24F1	9-16-64	-0.11 \pm 1.65	2.86 \pm 7.68
		7.61 \pm 3.00	-2.03 \pm 12.65

Arlington Hydrologic Subarea Y-01.B6

3S/6W-24P1	9-15-64	-0.11 \pm 1.65	3.12 \pm 4.56
		6.86 \pm 8.50	0.00 \pm 9.06

Riverside Hydrologic Subarea Y-01.B7

2S/5W-12C1	9-15-64	0.59 \pm 0.96	2.33 \pm 3.29
		2.55 \pm 8.84	25.45 \pm 12.22

TABLE E-2

RADIOASSAYS OF GROUND WATER

SANTA ANA DRAINAGE PROVINCE (Y)
(continued)

State Well Number	Date Sampled	Picocuries per liter ^a		
		Gross Alpha Gross Beta	Solid Alpha Solid Beta	Dissolved Alpha Dissolved Beta
<u>Bedford Hydrologic Subarea Y-01.C2</u>				
4S/6W-22F1	9-18-64	-0.26 ± 1.64		1.33 ± 3.77
		3.82 ± 7.61		0.00 ± 12.42
<u>Cajon Hydrologic Subarea Y-01.E1</u>				
2N/5W-33Q2	9-14-64	0.27 ± 0.63		0.37 ± 1.76
		0.81 ± 8.80		-4.34 ± 9.27
3N/6W-28B1	9-14-64	0.20 ± 0.96		0.14 ± 28.82
		3.82 ± 8.36		10.48 ± 12.38
<u>Bunker Hill Hydrologic Subarea Y-01.E2</u>				
1S/3W-9E2	6-15-64	3.35 ± 2.46		
		2.38 ± 11.42		
1S/3W-18L1	6-16-64	0.11 ± 0.73		5.88 ± 3.44
		-2.70 ± 8.64		-9.38 ± 10.83
1S/4W-5E5	6-17-64	1.73 ± 2.56		
		5.10 ± 13.12		
1S/4W-13F2	6-17-64	-11.17 ± 5.30		
		-12.32 ± 12.94		
1S/4W-13G2	6-17-64	6.95 ± 3.64		
		6.51 ± 12.60		
1S/4W-13L1	6-16-64	5.97 ± 2.69		
		11.27 ± 12.65		
1S/4W-23F2	6-17-64	1.10 ± 3.38		
		3.35 ± 13.66		

TABLE E-2

RADIOASSAYS OF GROUND WATER

SANTA ANA DRAINAGE PROVINCE (Y)
(continued)

State Well Number	Date Sampled	Picouries per liter ^a		
		Gross Alpha Gross Beta	Solid Alpha Solid Beta	Dissolved Alpha Dissolved Beta

Bunker Hill Hydrologic Subarea Y-01.E2 (continued)

1S/4W-26J1	6-16-64	$\frac{1.50 \pm 1.90}{-1.42 \pm 13.22}$		
1S/4W-29E1	6-16-64		$\frac{0.07 \pm 2.83}{2.57 \pm 8.80}$	$\frac{0.26 \pm 1.49}{0.00 \pm 8.31}$
1N/4W-29F1	6-16-64	$\frac{0.28 \pm 1.66}{14.30 \pm 13.09}$		
1N/5W-2A1	9-14-64		$\frac{0.48 \pm 0.81}{9.94 \pm 9.09}$	$\frac{0.98 \pm 1.65}{2.11 \pm 9.51}$
1N/5W-22F1	9-14-64		$\frac{-0.61 \pm 1.77}{-2.71 \pm 8.18}$	$\frac{-0.83 \pm 3.33}{-10.36 \pm 10.72}$
2N/5W-34A1	9-14-64		$\frac{0.15 \pm 0.63}{6.61 \pm 8.88}$	$\frac{-0.45 \pm 3.95}{3.82 \pm 9.72}$

Santa Ana Canyon Hydrologic Subarea Y-01.E7

1S/2W-8C1	6-15-64	$\frac{8.62 \pm 2.90}{10.01 \pm 11.68}$		
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Mill Creek Hydrologic Subarea Y-01.E8

1S/2W-16F1	6-15-64	$\frac{6.92 \pm 3.76}{9.45 \pm 12.85}$		
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Cherry Valley Hydrologic Subarea Y-01.F3

2S/2W-14M1	8-17-64	$\frac{0.00 \pm 1.32}{-0.22 \pm 9.35}$		
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TABLE E-2

RADIOASSAYS OF GROUND WATER

SANTA ANA DRAINAGE PROVINCE (Y)
(continued)

State Well Number	Date Sampled	Picocuries per liter ^a		
		Gross Alpha Gross Beta	Solid Alpha Solid Beta	Dissolved Alpha Dissolved Beta

Perris Valley Hydrologic Subarea Y-02.A1

3S/3W-29E1	8-12-64	-1.19 + 2.85		
		20.94 + 11.34		

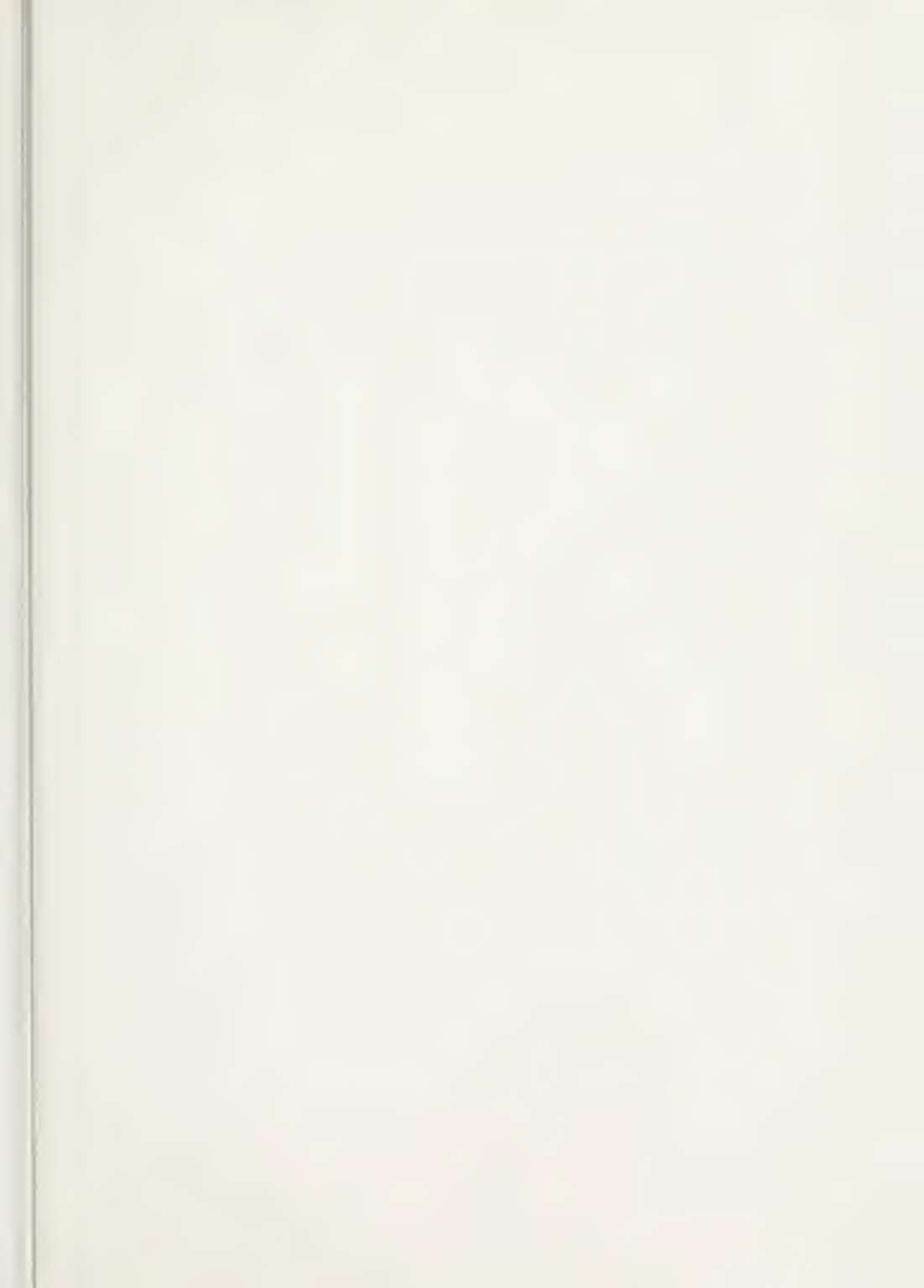
Menifee Hydrologic Subarea Y-02.A2

6S/2W-6P1	8-13-64	0.83 + 4.08		
		-8.64 + 11.84		

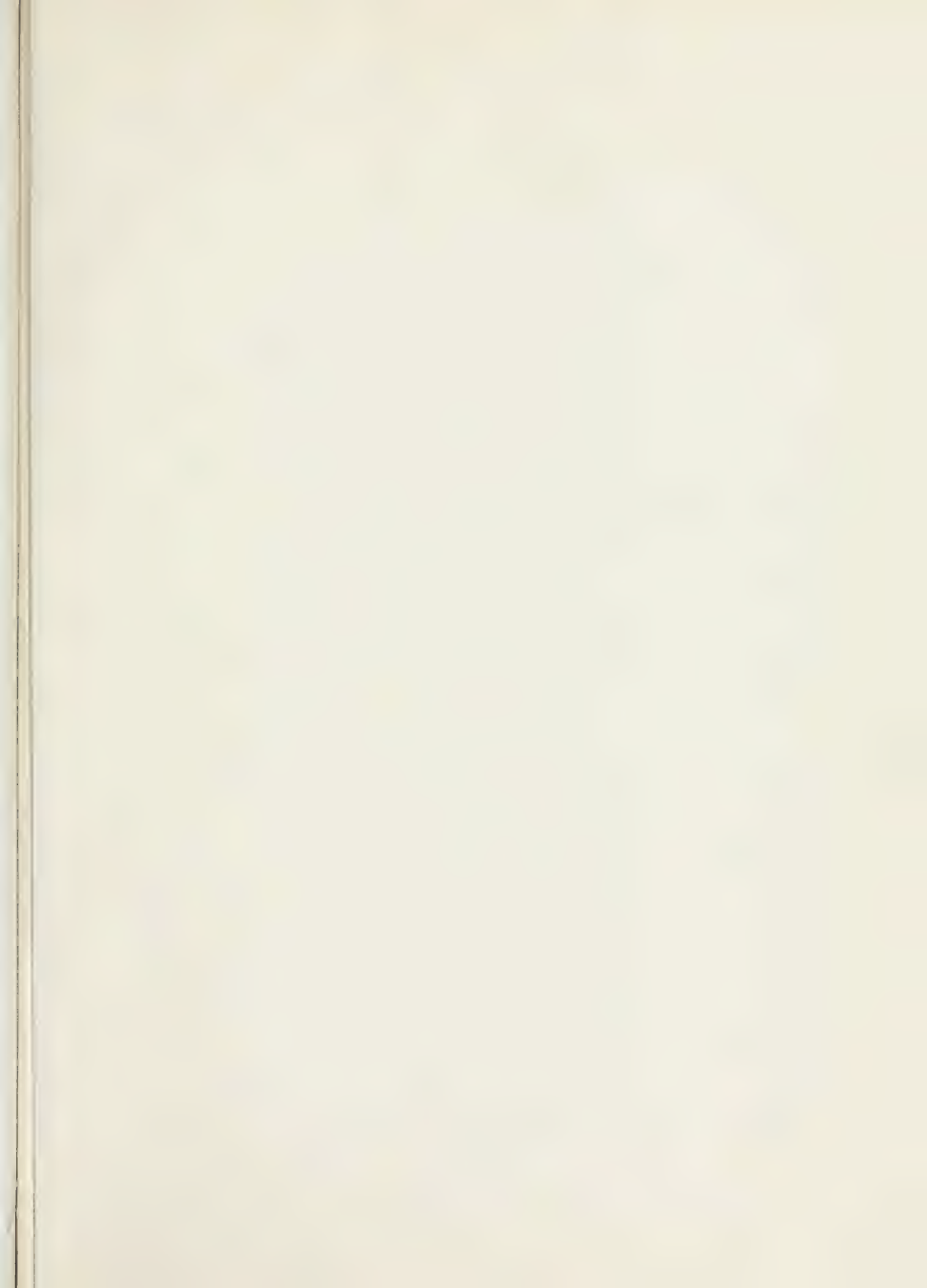
San Jacinto Hydrologic Subarea Y-02.B1

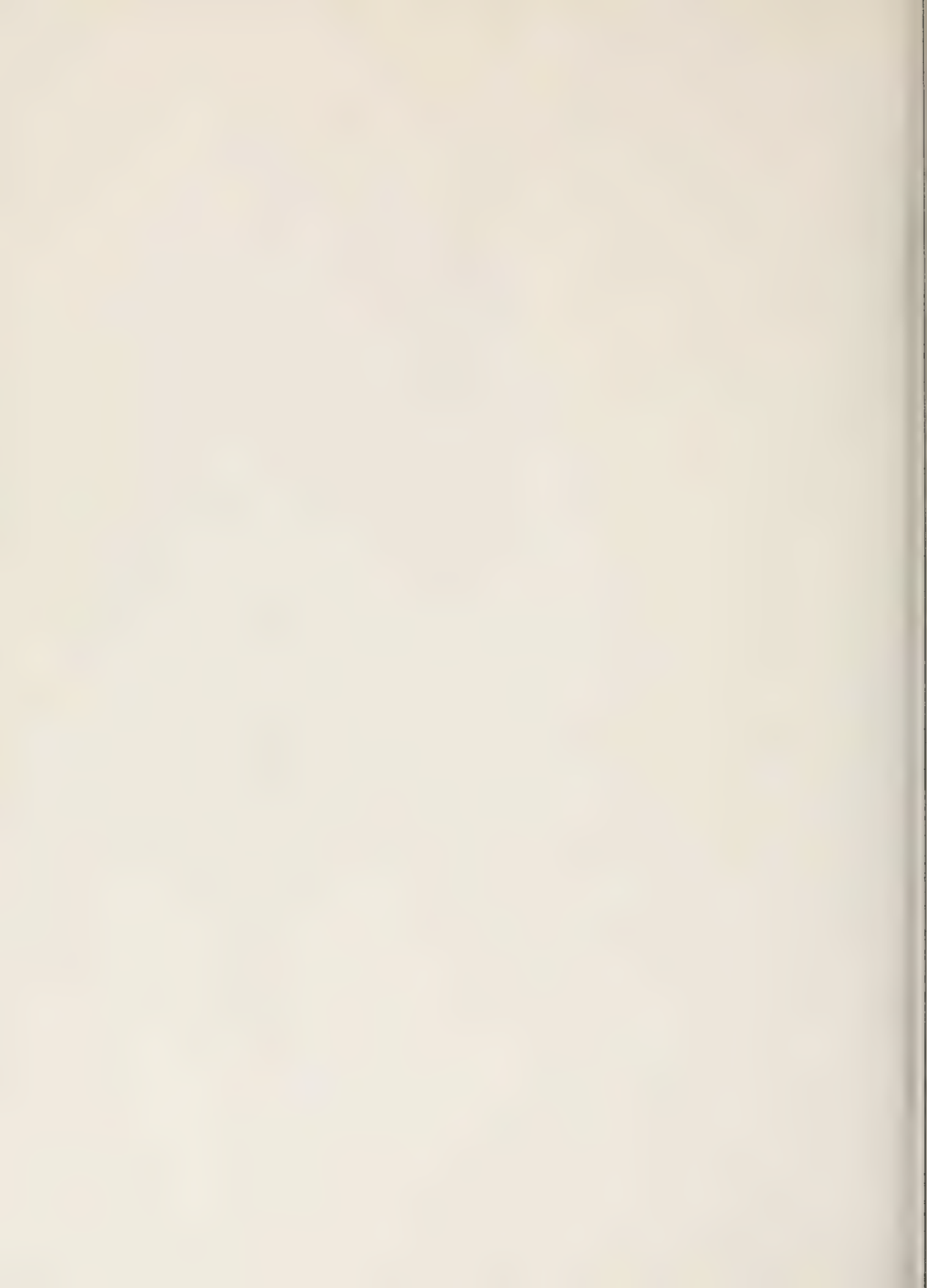
5S/1E-9J1	8-14-64	-2.13 + 7.94		
		-0.42 + 11.25		

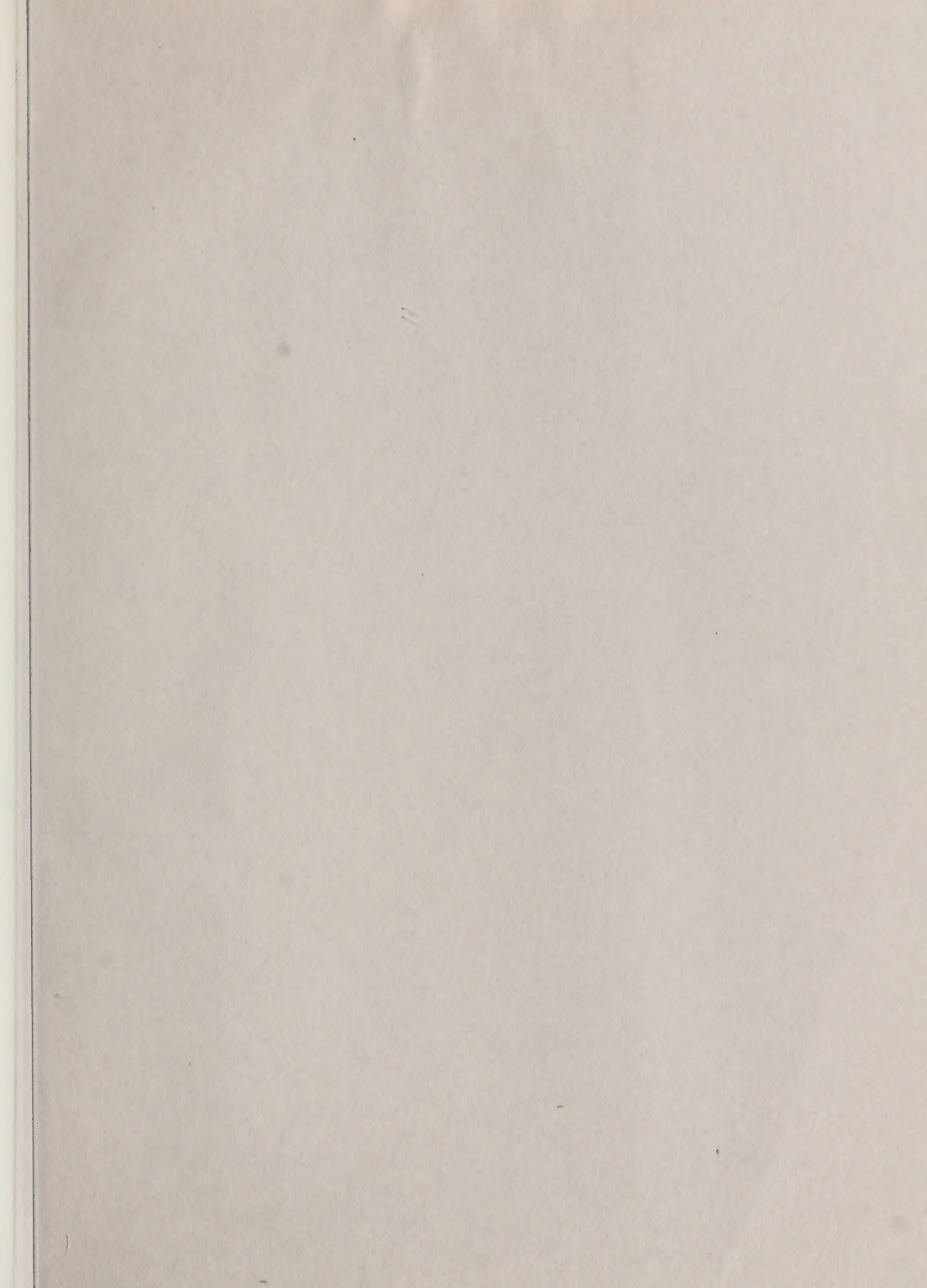
a. Deviations reported at the 95 percent confidence level.











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